RAILROAD

DECEMBER, 1960

50c | MAGAZINE

For 75 years the Duluth, Missabe & Iron Range Ry. (now dieselized) and its predecessors operated a total of 352 steam locomotives, from four-wheel woodburning switchers to giant 16-drivered Mallets, in hauling over a billion tons of iron ore. Herb Mott's painting shows No. 1218, a Baldwin 2-8-0, and the world's largest open-pit iron mine, Hull-Rust-Mahoning, at Hibbing, Minnesota.

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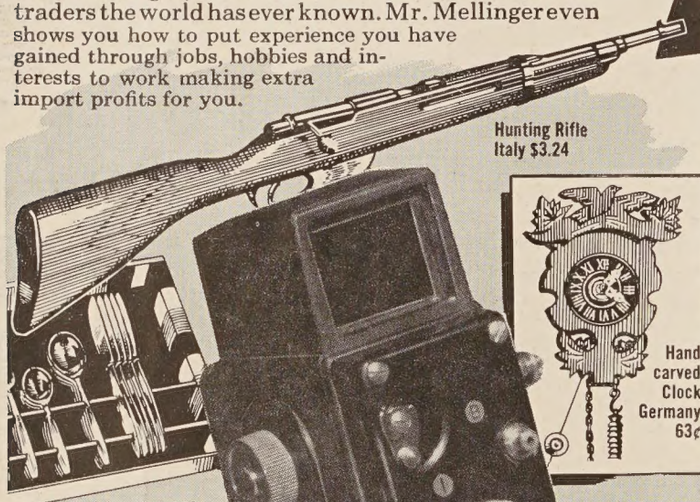

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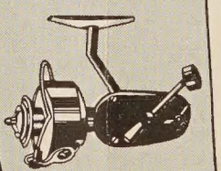
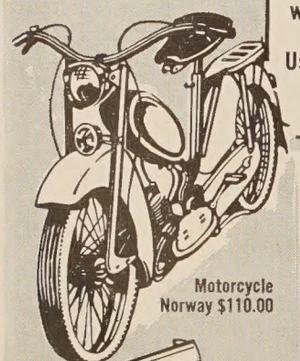
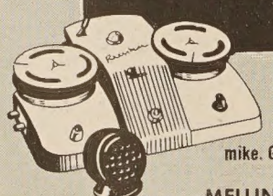


Spinning Reel with spare spool 96¢



Motorcycle Norway $110.00

Derringer Pistol Germany $5.74



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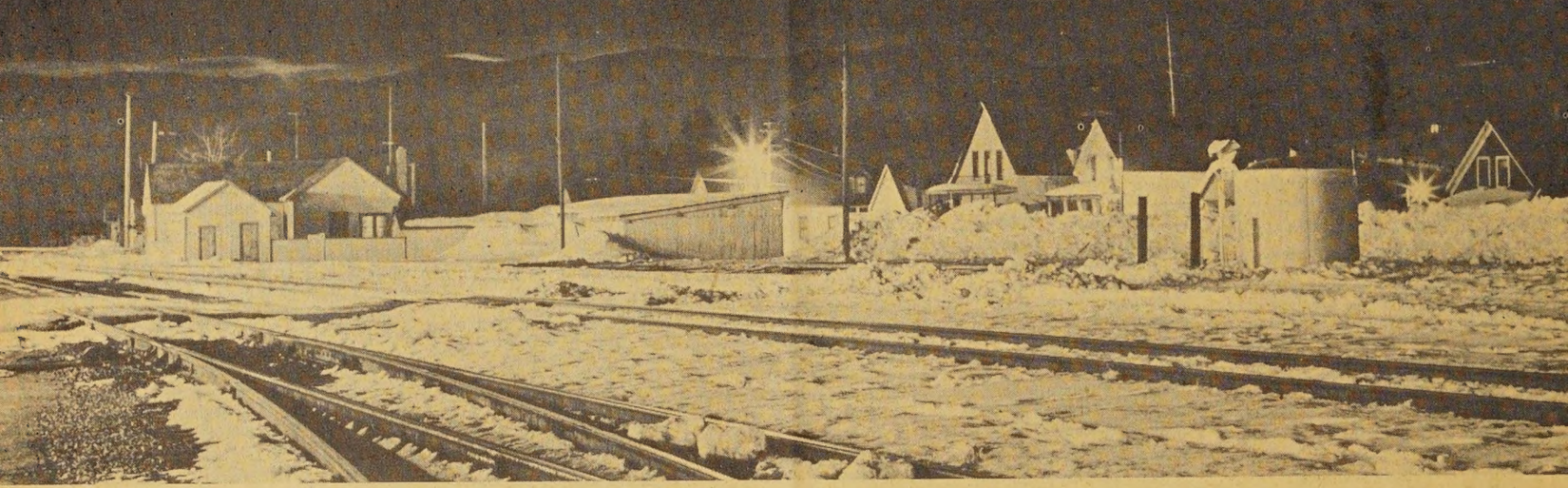

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Railroaders and Fans Sit in With the Editorial Crew

BACK in 1868, when public hangings were regarded as a form of entertainment, the Boston, Concord & Montreal (now part of the Boston & Maine) ran a special excursion train between Laconia and Haverhill, N. H., for the benefit of morbid citizens who wanted to see a convicted murderer named Mills mount the gallows and "dance on air."

A bulletin issued at Plymouth, N. H., on May 4 of that year gave the schedule. One copy of it, now yellowed with age, is owned by Oel C. Hardy, the B&M's assistant division superintendent at Concord, N. H., and it says:

NOTICE. By request of Persons who wish to attend the Execution of MILLS, at Haverhill, on WEDNESDAY NEXT, an Extra Train will run as follows, for fare one way: Leave Laconia 6:00 a.m., Plymouth 7:20, Warren 8:30, arrive Haverhill 9:10. Returning, leave Haverhill at 12 o'clock noon.

The extra consisted of two open-vestibuled wooden coaches with hard wooden seats and an eight-wheeled woodburner whose flaring balloon stack belched great clouds of smoke. It must have been quite a picnic. The passengers carried lunch baskets well stocked with food and drinks. Presumably the train and engine crew took advantage of the layover of nearly three hours to join the crowd watching the death struggle in the town square.

Thus a "necktie party provided amusement for Mr. Mills' neighbors as well as revenue for the BC&M. Extra trains which took people to witness executions were not so uncommon as you might think. A retired Vandalia engineer named "Carload Andy" Ospring, 1321 N. Ontario St., Burbank, Calif., tells us that the Santa Fe operated such a train in the 1880's in connection with the hanging of killer Pete Wampus. There may have been many others. ●

MANY steam locos are still on the Duluth, Missabe & Iron Range roster, according to Burdell Bulgrin, whose father was a DM&IR engineer.

"For normal service," he writes, "the road is dieselized. But when business is especially good they put several steamers back into operation. At least, that's what they were doing when I was there last May and saw six Mallets working out of Proctor and a couple out of Two Harbors. I also saw a Mike, No. 1304, switching at Endion, and 2-8-0 No. 199 switching at Mitchell. A couple of 2-10-2's were being used as *slushers* on the Two Harbors ore docks, furnishing hot water to wash out huge ore bins.

"A lot of steam locomotives, mostly 0-10-2's and 2-10-4's, are being held for the steaming plant in the winter, to thaw out frozen ore cars. Actually, of all the steam locomotives left, only the 2-8-8-4's, the 2-10-2's, the 2-8-2's, and 2-8-0's stand much chance of being used again in train service. At latest reports, the DM&IR roster includes the power listed below."

Steam locomotives:
2-8-0: Nos. 198, 199, 1218. The 199 was renumbered from the 190 last winter to make room for more diesels.
2-8-2: Nos. 1301, 1302, 1304, 1313, 1314, 1323, 1327, 1330.
0-10-2: Nos. 603 and 604.
2-10-2: Nos. 500, 502-507, 509, 510, 512-514.
2-10-4: Nos. 700-703, 705-717. (Of this series, only 704 has been scrapped.)
2-8-8-4: Complete series, 200-236. (No. 237 was scrapped because a wreck years ago ruined her.)
Diesel locomotives:
SW-9: They had fifteen 1200-hp EMD's and thus far have sold 8 to other roads. This type is too small and light for the DM&IR's heavy work. I don't have the numbers of the ones left.
SD-9: Nos. 101-174, EMD, 1750 hp.
SD-18: Nos. 175-194, EMD, 1800 hp.
F7A: Nos. 719A to 726A. Total of 8 "A" units of 1500 hp. Also 719B to 726B. Total of 8 "B" units of 1500 hp. All those F-7's are leased from the Bessemer & Lake Erie. ●

BESIDES being a Louisiana & Arkansas train dispatcher, Harold K. Vollrath, 2524 Meriwether Rd., Shreveport, La., is an active railfan. Our August issue reviewed a logging-engine sound recording, *A Symphony in Steam,*

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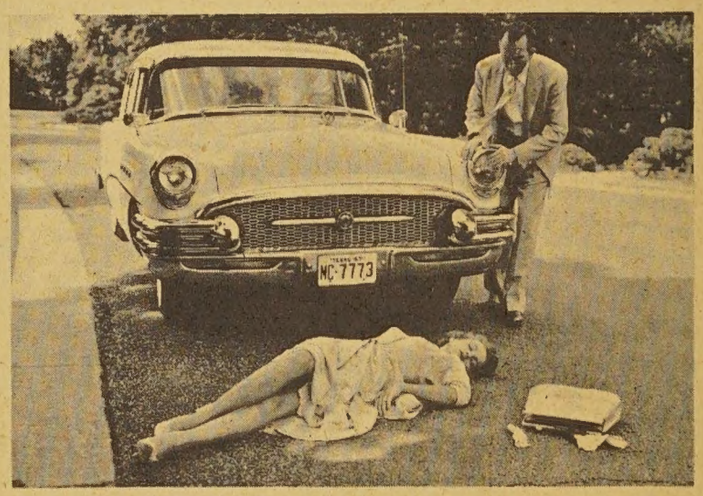

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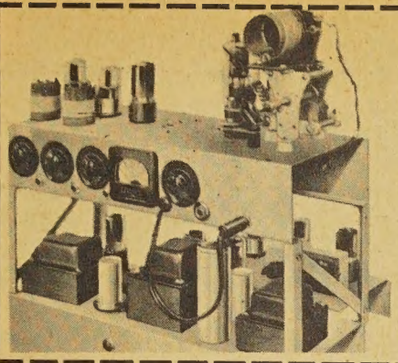

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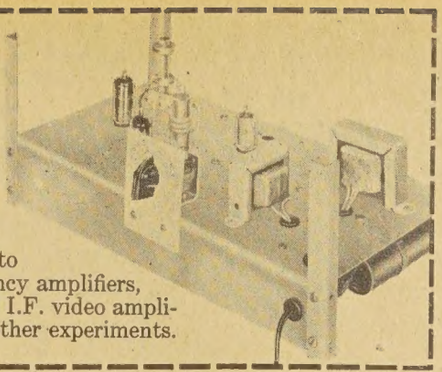

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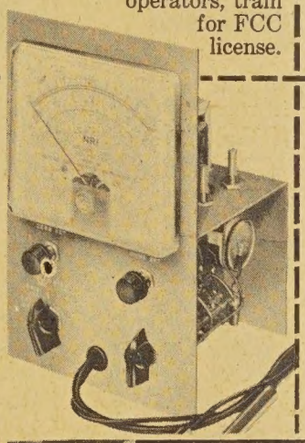

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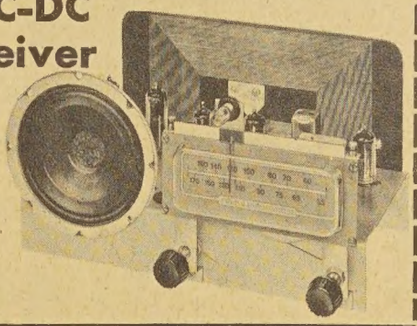

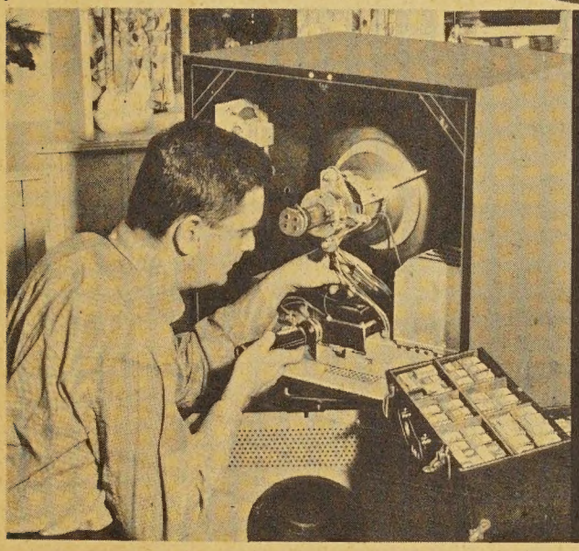

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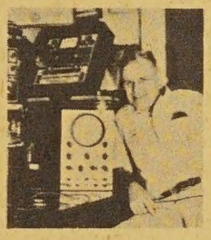
WHAT GRADUATES DO AND SAY

Chief Engineer

"I am Chief Engineer of Station KGCU in Mandan, N. D. I also have my own spare time business servicing high frequency two-way communications systems." R. BARNETT, Bismarck, North Dakota.

Paid for Instruments

"I am doing very well in spare time TV and Radio. Sometimes have three TV jobs waiting and also fix car Radios for garages. I paid for instruments out of earnings." G. F. SEAMAN, New York, N. Y.



Has Own TV Business

"We have an appliance store with our Radio and TV servicing, and get TV repairs. During my Army service, NRI training helped get me a top rated job." W. M. WEIDNER, Fairfax, South Dakota.

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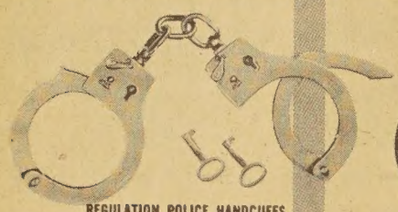

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With New, Exclusive CUFF-STOP
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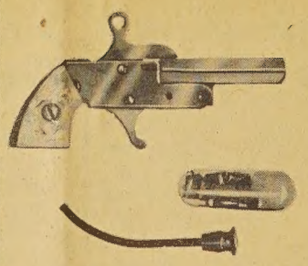
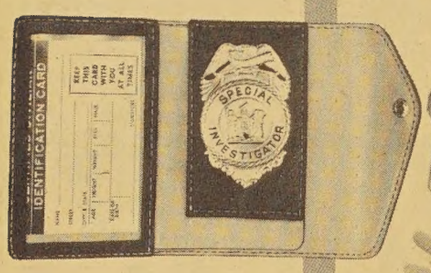


LITTLE ATOM PISTOL
Small as the end of your thumb but it "sounds off" like a cannon. The world's "showiest" small pistol—gold plated with pearl grip. Complete with ramrod, blanks, **$2.95.** Extra blanks 50c per capsule.



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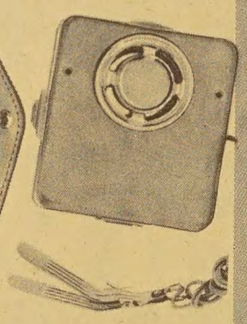

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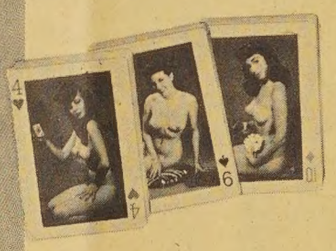
Fits every door or window. No wiring or installation. Sets off loud siren! Can hear for blocks. Works on standard flashlight battery (not included). Also fits pocket or purse. A real bargain at **$2.98.**



WOLF-PACK PLAYING CARDS
Full deck of playing cards—and what pictures! Exciting . . . entertaining. We hope you can keep your mind on the game after looking at these 52 full-color cards. Set only **$1.95.** Also Stag Deck **$2.95.**

Imported Italian WOLF KILLER STILETTO
This fabulous knife is famous on the Continent for hunting and fishing emergencies and it is faithfully trusted by sportsmen all over the world. Made of high test carbon steel. Positive lock, open or closed. 5 9/16" open, **$4.70;** 7 1/16", **$4.95;** 11", **$7.50;** 13 1/4", **$2.95.**

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$5 postpaid, of which Harold was a co-producer. He also sells steam loco pix, sizes 616 and postcard, from a very large number of U. S. roads. The samples we've seen are good, clear shots. For 50 cents, he says, he'll send you a big catalog, 45 pages, listing all pix and containing a coupon for free pix. ●

ONE of our August *Photos of the Month* was captioned: "Signal Maintainer Bill Coe covers 36-mile stretch of Milwaukee Road's Iowa Division, part of world's longest CTC system under one operator, 331 miles." But it isn't the longest, according to R. G. Cornelius, Rhinebeck, N. Y. A Southern Pacific dispatcher seated at the CTC board in Houston, Texas, handles trains between Sierra Blanca and Belen, 737 miles away, which the SP claims is the greatest distance for such installations. ●

BAD NEWS. The Pennsylvania Railroad has finally junked the last of the superb steam locomotives it had been holding in stand-by service. Dieselization of the road is complete.

"They make top quality scrap," *The Pennsy* magazine exults. "It's called Class 2d heavy-melting railroad scrap, highly desired by steel mills. A locomotive-and-tender combination brings anywhere from $4,000 to $12,000."

Before each doomed locomotive was sent out, PRR enginehouse men removed certain parts, including the builder's plate, the number plate, and the bell. These are prized items to collectors of railroad mementoes. The PRR has been deluged with letters requesting them, but the supply is now exhausted. So don't ask for any more.

For PRR people, the end of steam was especially sad because their railroad was a world leader in designing and building steam locomotives. The PRR was among the first to use such things as the swing-holster, four-wheel leading truck for negotiating curves, and the steam injector for feeding water into the boiler.

The very first airbrakes were tried out on the Pennsylvania by George Westinghouse in 1869 and adopted a year later. The PRR's locomotive testing plant at Altoona was world-famous. Portions of it were shown in 1904 at the Louisiana Purchase Exposition in St. Louis.

History of Pennsy steam goes back to the *John Bull*, built by Robert Stephenson in England and delivered in 1831 to the Camden & Amboy, which later became part of the PRR. The *John Bull* is now preserved at the Smithsonian Institution in Washington, D. C. This was the first locomotive to have a *cowcatcher*, or pilot.

Over the years the PRR designed and built a wide variety of steam engines, most of them excellent. Widely-used passenger models included the E-6 Atlantics and K-4 Pacifics. Holder of the global speed record for many years was a Class E-2 locomotive, No. 7002. A more powerful engine was the later S-2, first U.S.-built, direct-drive, steam-turbine locomotive.

Well-known freight types included the Decapod, Consolidation, Mikado, and Mountain. Two mighty 4-cylinder models were designed to reduce the need for doubleheading: The T-1, a passenger engine placed in service in 1942, and the Q-2, a hefty freight-hauler introduced two years later. High point in steam was in 1920, when the PRR had 7,667 locos on its roster!

The last active Pennsy steamer was a B-6sb, No. 5244, leased to Union Transportation Co. of New Jersey and retired July 15, 1959, then scrapped.

"Now," says *The Pennsy*, "what's left of steam power on the Pennsylvania Railroad? A K-4 is permanently displayed at Horseshoe Curve (photo in Oct. '60 *Railroad*). Seventeen steamers of varying vintages are stored at the Northumberland, Pa., enginehouse, but the PRR currently is negotiating their transfer to museums.

"About 100 steam-engine tenders serve in maintenance-of-way work

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PAPER PARACHUTE	TRICK SAFETY PIN	MAGNIFYING GLASS	SQUIRT FLOWER	CONFEDERATE FLAG	SWITCH BLADE KNIFE	HANDCUFFS	WHISTLE
PAPER BOW TIE	JUMPING FROG	SQUIRT GRENADE	CASH REGISTER BANK	TRICK PENCIL TRYRITE PENCIL	SNAKE CIGAR	FUR MONKEY	CHEF'S HAT
PLASTIC RING	MAGIC MONEY CHANGER	TELESCOPE VIEWER	FLY PIN	WARBLING BIRD WHISTLE	BED PAN	AUTO ASSORTMENT	NOSE BLOWER
DICE	MINIATURE SHRUNKEN HEAD	WOOD YOYO	DIRECTIONAL COMPASS	LOVE TESTER	RUBBER DAGGER	KEY CHAIN	SPACE GOGGLE
CHARM KNIFE	SQUIRT CIGAR	MUMMY IN COFFIN	TEETH	CIGARETTE WHISTLE	PAINTED JUMPING BEANS	DANGLING SPIDER	X-RAY
JUMPING MOUSE	MASK	HARMONICA	PLASTIC PIN BALL GAME	MAGIC CORD	BASEBALL GAME	CHARM SKULL	CAMERA SQUIRT
METAL CAR	TRUMPET	CARD BOX TRICK	BEAN BLOWER	PLASTIC BICYCLE RIDER	SHIP IN BOTTLE	MINIATURE MIRROR	RUBBER HOT DOG
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METAL CAMERA	MAGNET	DAGGER WITH SHEATH	CHILDREN'S WATCH	LANTERN RING TOSS	HOLY BIBLE CHARM	BLOWBALL	FORTUNE TELLING FISH
WATER GUN	POLYETHYLENE SKELETON	MINIATURE LOCK	CIGARETTE AND MOUSTACHE	LARIAT	MASQUERADE GOGGLES	PHONY HYPO	PLASTIC GOGGLES

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GUARANTEE: YOU MUST BE SATISFIED — PLUS!

trains, carrying water for washing and drinking. Finally, there are 66 steam locomotive bells. These have been set aside for installation in the 66 new rectifier-type electric locomotive being built for the PRR. When these engines begin arriving this winter, sentimental steam fans, if they listen hard, will be able to hear the nostalgic clang of pure-tone bell metal saluting a never-to-be-forgotten era." ●

BRIEFLY SPEAKING. "Who wants to buy an old four-wheel caboose that originally ran on the Buffalo, Rochester & Pittsburgh (now part of the B&O)?" asks Festus von Blon, Box 6422 BU Station, Waco, Texas, who offers to supply details on request.

Since 1958 no steam locomotive has been built in the Soviet Union. Steam is gradually being replaced there by electric and diesel traction.

The West German chancellor, Konrad Adenauer, recently made a railroad trip from his capital, Bonn, to Moscow without changing trains, although the German Federal Railways is standard gage while the Russian system is broad gage. Curious to learn how that was done, Robert E. Seip, 715 N. 7th St., Allentown, Pa., wrote to the German Embassy at Washington. Back came the reply that the trucks on the cars of Adenauer's train were exchanged at the Polish-Russian border.

Plans to merge the Great Northern, the Northern Pacific, the Burlington, and the SP&S to form a system of nearly 25,000 miles have been approved by the directors. However, many hurdles remain to be crossed before such a merger could become effective.

How long does it take to complete a merger *after* the two roads involved have officially become one? In the case of the Norfolk & Western and the Virginian, the answer is seven months. The merger of those two became official Dec. 1, 1959, but the last of six major physical connections between them did not begin to operate until the following June 30.

Navajo Indian trackworkers helped to make the world's first installation of "ribbon rail" last summer on a new 44-mile line that the Santa Fe is building between Williams and Crookton, Ariz. It consists of 37 conventional 39-foot lengths pressure-welded electrically into a 1440-foot unit. Laying the ribbon rail on bare tires was a ticklish job. If inexpertly handled, it could have turned and writhed.

The Catholic parish of Cheektowaga, N. Y., near Buffalo, is bounded on the north by the West Shore Railroad, on the east by the Lehigh Valley Railroad, on the south by the New York Central, and on the west by the Thruway, reports Wm. C. Kessel, Hamburg, N. Y.

Four passenger trains and several freights braked to a halt the other day near Rosignano Solvay, Italy, on the main line to Rome. The signals were red, for no known reason. Investigation disclosed that mice had been chewing on the wires in the switch box at the control tower, causing a short circuit.

High speed isn't always welcomed. Not long ago, Argentine railroad passengers, accustomed to delays and slow speed, gasped with panic when their train made a normally 20-minute run in six minutes. Police at General Savio Station found that both the engineer and fireman were drunk.

Chesapeake & Ohio has upped the capacity of its two biggest trainferries, the *Badger* and the *Spartan*, so that each can now carry 26 railroad freight cars and 25 automobiles. C&O operates seven trainferries on Lake Michigan; all carry passengers as well as railroad cars and automobiles. (*Turn to page* 36)

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You could be earning top pay in months. It's mostly a matter of getting your training now. Your best bet is to be a mechanic in the air conditioning and refrigeration field. This industry is growing so fast that *20,000 newly trained mechanics are needed each year.* Over 150 million units are in use; over 5 million new air conditioners, freezers and refrigerators are sold annually. Skilled men are desperately needed for installation and repair work. Be a mechanic! *Mail coupon for free success booklets on CTI's amazing new Home Training Plan.*

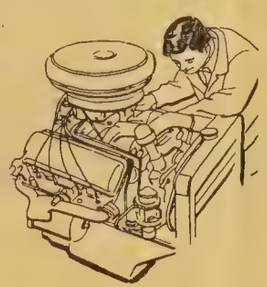
You can earn cash during your training

Because CTI training is so *practical,* you'll soon be making profitable service calls. Perhaps you'll work on your own. Or, you may prefer to get a part-time job with a local appliance dealer or air conditioning contractor. You can add to your present income this way. With extra cash, you can buy additional shop equipment, pay your tuition, even bank money.

You could go in business and be independent

Own a business—and enjoy independence! Thrill to the satisfaction of being the boss. Give orders—not take them! The refrigeration field is ideal for getting started on your own. You can make friends as you make service calls. In time, you'll have a list of potential customers. You can also sign service contracts with food stores, taverns, restaurants, etc. Ever so many CTI graduates have their own successful shops. Most of them began with nothing more than their new training and pluck. You, too, can start small and grow big. Be a business man!

You could get into the profitable new auto air conditioning field



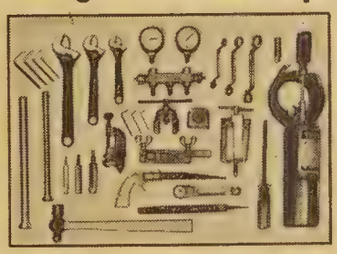
Hundreds of thousands of new cars are being equipped with air conditioners. Auto dealers are advertising for skilled refrigeration mechanics, offering premium pay, to set up service departments. Or, you can go in business for yourself, and contract with auto agencies to do this type of installation and repair. You can make big profits either way.

You learn fast because you practice with real equipment — Get experience

You train at home in spare time. No need to give up your present job; no need to leave home to attend a resident school. *CTI sends 25 kits of parts and tools* to build a heavy-duty, commercial-type, ¼ h.p. refrigeration high-side (illustrated above.) You do 10 trouble-shooting and service jobs—it's almost like field training!

After assembling and working projects with your unit, you may build an air conditioner, refrigerator, freezer, or milk cooler. *All parts and tools are sent without extra charge*—they are yours to use and keep.

You get all these quality mechanic's tools



You get special "tools of the trade" as part of your training. Included is a pressure gauge, vacuum gauge and testing manifold. You'll use these tools to assemble and test the condensing unit. Thus, you get not just tools—*but equipment to practice with.* (Why settle for one without the other?)

You must look into your opportunities

Thousands of CTI graduates (and students) tell us they are getting better jobs, earning more money, working steady. Many are going in business. It is surprising how many report the best benefit of all is that they gained self-confidence. With so much at stake, can you afford to neglect *your* opportunities? Isn't it worth a few minutes of your time to *find out?* Just fill out and mail the handy coupon! Be sure to act today.

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in any future national emergency, the principal burden of transportation will fall upon the railroads (in World War II, 90% of all military freight moved by rail).

In everyone's interest, public policy should give the railroads the opportunity to compete with other forms of transportation on a fair and equal basis.
ASSOCIATION OF AMERICAN RAILROADS, WASHINGTON, D. C.

Arthur Young washes the Canadian Pacific's 2926 at McAdam engine terminal in New Brunswick. This Jubilee (4-4-4) type was used on trains 562 and 563 between McAdam and St. Andrews until August 15, 1959, and was showered after each round trip.
David Plowden, New York City

Photos of the Month

An eastbound Canadian Pacific freight "in the hole" for the westbound *Canadian*, elite transcontinental streamliner, just west of Stoney Creek, B.C., and not far from the five-mile-long Connaught Tunnel. The road switcher (left) is GP-9 type, Class DRS-17d, rated at 1750 horsepower per unit. No. 1424 is FP7A, Class DPA-15c, rated at 1500 hp per unit.
Nichols Morant, Canadian Pacific Railway

Some time in the 1940's, when Steam was king, this shot was made on the Louisville & Nashville's Tracy City branch, which spans the tunnel. The top loco is No. 395; the lower one is unidentified.
H. C. Hill, Louisville & Nashville Railroad

THE SUN SETS on the HUMP RIDER

You Won't Find Many of Them Left Today, but Some Years Ago No Freight Terminal Yard Could Be Operated Without This Rugged Breed

by EDWARD GREEN

ILLUSTRATIONS BY JOE EASLEY

YOU OLDTIMERS who used to work like the devil in yard service would often hear the *bull hump* bellow orders like this: "Two for Number Three! Short Alley!"

You don't hear that voice in many places today. With all those push-button yards being built and put into service throughout the States and Canada, the rugged old breed of hump riders is fast becoming extinct. I should know. Some years ago I was one of them, riding freight cars down the hump in the Canadian Pacific's Westfort Yards at Fort William during the grain rush, and I mean we really worked.

For the benefit of youngsters who don't know the facts of life, a *hump* is the mainspring of what the head office delicately terms "gravity switching." It is a raised portion, or *hump,* over which a single track runs to connect the receiving yard with the distributing yard. It might be ten, twenty, or even thirty feet high, depending on the size of the yard. The approach from the receiving yard is gradual and flattens out somewhat at the top, or crown, of the hump.

The foreman, or bull hump, stands there holding a switch list on which is written the number and description of each car on the train and to whom it is consigned. Close by, with an iron hook in his hand for pulling knuckles, one of the hump engine crews is braced for action. At a signal from the bull, he pulls the pin on one, two, or three cars, whatever the cut may be, and as they pass over the crown they start rolling down to the receiving yard.

On the distributing end of the hump, *leads* fan out to right and left. From these leads run spurs, commonly referred to as alleys. Each switch-tender controls a number of switches and each has a duplicate list. As the cars roll down the leads these men "bend the iron" that turns them into the alleys reserved for the various consignees. Thus, when a train has been humped, every car is in its proper place for the switch engine to pick up and deliver. During the grain rush the entire Westfort Yard handles nothing but grain, each elevator along the waterfront having its own alley. If you have ever seen that busy and picturesque sight you will never forget it.

Obviously you can't just push these cars over the hump and let them go. They must be ridden down and their speed checked as they near the other cars on the alley. That is what your hump jockey does. When the car is on the crown, the bull hump jerks his thumb, and a rider scrambles onto the lead car. If he has any sense the rider will try his brakes. They usually work fairly well by the hand-wheel on the top.

One cold night in long-gone mid-November we were all standing around in the Westfort Yards waiting for our cuts as the train crept slowly up the hump. Frost nipped the air and a mean wind was sweeping in off Lake Superior. We knew that soon the famous Canadian winter would take over. Since the latter part of August the hump had been highball all the way, and now the traffic was reaching its peak. The brass collars threw everything they had into getting all the available grain out of Western Canada and to the lakehead and seaboard before the freeze-up.

"Three for Number Seven!" the bull hump sang out. "Take this boy down and break him in."

He motioned toward a young man, and we both climbed the lead car.

"Long alley," the bull hump added.

That meant the alley had been pulled by the switch goat or there would be only a few cars on it. I sat at the head end of the lead car, my right leg around the brake-wheel shaft and my left on the platform, holding the dog and ratchet that was used to lock the brakes. Taking a few turns on the brake wheel,

I felt the brakes grip and I let go.

The train was a hotshot, just in off the road with her journals still warm. The cars would roll fast, but with a long alley it didn't matter. If it had been a short or doubtful alley, I would have sent the greenhorn back to take a reef on the second car-brakes, because it is pretty hard to stop a hot three-car cut with a single hand-brake.

As we coasted down smoothly from the hump, I explained what had to be done: keep the brake-chain snug, watch ahead, and start slowing down a good distance from the car on the alley. The frosty night carried the *click-click* of wheels passing over rail joints and the squeal and sudden lurch as we left the lead and headed into the alley. Now was the time to watch.

Unlike other roads, the Canadian Pacific did not supply clubs—usually pick-handles—as a lever on the brake-wheel. They would let the riders use anything they could find for clubs—two-by-fours, pieces of pipe, and poles—but one night a jockey wrecked two cars of grain and he said his club had broken. Another man smashed a car hard because, he said, his pipe had slipped on the steel. Thereafter the company banned all such aids.

Number Seven was a long alley, about half a mile, and, like most alleys, was pitch dark at night. If the Canadian Pacific didn't go for brake clubs in those days they believed still less in adequate yard lighting. Here and there a dim yellow bulb cast a sickly glow over an area of about ten square feet.

To offset this obvious danger, the company at one time furnished a lantern for every alley. After you had taken a cut down you were supposed to carry the lantern back and place it on ground at the end of the car so that the next rider would know exactly what to expect. This theory fell short in practice because riders either forgot or didn't give a damn, and the lantern might be five car-lengths back. The rider who trusted the lantern often saw a dim shadow ahead and then—*wham*—he hit. So the brass collars said, in effect: "To hell with such refinements! Use your hands and eyes."

We were rattling along at a pretty good clip when I saw the end of a car ahead. Long alley, eh? I spun the brake-wheel up, kicked the dog in, and shouted to the greenhorn to do the same on the next car.

He ran back. I passed him and managed to set the brakes on the third car. We slowed down fast, but not fast enough. Motioning for the boy to follow me, I ran to the center of the lead car.

As we were running, I told him to do exactly what I did.

"Jump straight up in the air as high as you can when I do," I said, "when she hits, and you won't get the bump unless you misjudge."

A second later she hit hard. Being in the air, we missed the violent shock. The cars were staggering when we landed back on them, but no harm was done.

While we ambled back to the hump we could hear the *woohruf, woohruf* of the locomotive exhaust as she pushed the train slowly up the incline. There seemed to be ten seconds or more between each loud snort of that giant engine. You could only marvel at the power exerted in those cylinders.

She moved very slowly, more slowly than a walk, to allow time for each cut to get away before sending the next down. Some boys wouldn't believe she was pushing so leisurely. They'd stand watching the big cone of black smoke reflected in the headlight as the engine got nearer. Then, at the next exhaust the column would cut off sharply and scatter, they would shake their heads in wonder.

Few of us knew much about the various types of motive power. We did know, however, that the 5300's were the CPR's biggest freight hogs and the 2700's were fast passenger engines. We had heard a lot about D-10's and how one of them got Charlie Walker, a young fireman, set down for two weeks. I was reminded of this incident while reading a story by John Johns entitled "Emergency Run" in the October issue of *Railroad Magazine*.

Johns tells how a Pennsy hogger made love to a gal who had caught his eye one day when he was looking out of his cab window. Well, Charlie was like that. He wore a bright blue bandana and would lean out of the cab to wave at passers-by. Trouble started when his train went into the hole at some village and Charlie left the cab to stretch his legs and he got talking with a certain female.

From then on, he did his best to arrange another stop there. He had heard that if you slammed a few scoops of wet coal against the flue sheet of a D-10 you'd set the flues leaking. So he deliberately fired a lot of wet coal. Sure enough, the fizzing started. They took siding at the same village where Charlie had met the gal.

He pulled this stunt twice more, and then the story got out. The division superintendent got Charlie on the carpet, but he couldn't prove anything, so he asked, "Why in hell don't you call on that girl at her home?" The ashcat thought that might not be a bad idea, and the super gave him two weeks off, without pay, to do it.

Meanwhile, I was working the middle shift, four to twelve midnight, along with thirty or forty other yard men. In those days it was not unusual for fifteen- and twenty-year men to buck the extra board during the winter months. But when the wheat started moving—Ah, that was another matter! There was always a demand for help then, and a flock of boomers would show up at the yard.

The grain rush was—and is—a great Canadian institution. For a thousand miles or more west of Winnipeg vast seas of grain must be harvested, threshed and shipped before winter closes the Great Lakes and the St. Lawrence River. Every available piece of rolling stock is pressed into service to move millions of bushels to the huge marshalling yards at Transcona, where they go over the hump to be made up into trains for the mad dash to the lakehead.

It was just that, a mad dash. Trains almost a mile long highballed out on the heavily ballasted double track, many on a twenty- or thirty-minute block, depending on how fast the cars came in from the west. As soon as those drags reached the Westfort yards they were processed, humped, and the cars sent to the huge elevators where giant grain carriers with as many as 36 gaping hatches swallowed up to 600,000 bushels of grain.

You may have heard that song, *'Balling the Jack,'* in which a singer begs you to believe that wriggling around a dance floor is "balling the jack." In my time on the hump, the big freight engines were sometimes called jacks, and when they came into the Westfort Yard from Winnipeg with the throttle latched back, the sooty, dusty crews would climb down and say, "Boy we really were balling the jack this time!" In other words, for the benefit of singers, *highball* all the way.

Highball is right. Those long trains rocketed along, swinging and swaying, at sixty, seventy, and up to eighty miles an hour. The exhausts of the pounding hogs would rise steadily after hitting the main line until they made a thunderous roar. The side rods would be a blur; the swirling black smoke no longer an ostrich plume but flattened right along and down tight to the train, split only by the doghouse on the crummy, where the rear brakeman gathered so much soot on his face that he looked like the end man in a minstrel show. Finally they sighed to a stop at Westfort. With air pumps hissing, and radiating the soft smell of steam and warm oil, they made you feel as if they were proud of their runs.

The very sight and proximity of those monsters got into your blood and you were glad to be part of the team. No glittering streamlined cocktail shaker known as a diesel could ever raise that emotion in railmen. The very smell of the big road jacks was intoxicating. It would soothe you, not gag you like the acrid stink of diesel fuel.

Pay day was always bad for the bull hump on the middle shift. Pay checks were ready at the yard office any time after eight a.m. This gave the middle shift plenty of time to pick them up and cash them. Many bought strong liquor.

That's why the shift usually started off with a bang, several bangs, as riders lost their delicate touch on brake-wheels and slammed into cars much harder than usual. Despite the heavy smashes, little damage was done to the new 60,000-pound-capacity cars with all-steel frames. Those new babies could take quite a wallop, but the old wooden jobs used to split occasionally. Grain would cascade out of wide cracks that riders tried to stuff with straw or anything else available.

You don't get much sun tan at Fort William in December. The temperature drops to well below zero and when there's a stiff wind blowing you've got something more than a mere railroad to contend with. This time you really earn your money riding the hump, because it is tough to face that cutting cold and stay alert as in a darkened yard. You bury your face behind your high collar and hope for the best. Maybe you look up and see a car right ahead when you expected to coast at least five hundred yards.

Self-styled experts tell you that dry frost doesn't penetrate. The hell it doesn't! One night a proud string of varnish, the *Imperial Limited*, hit a switch engine. By the time the big hook pulled away the partially telescoped baggage car two men riding the blinds, who had been crushed between the tender and the car, were frozen solid! It was a ghastly sight.

But in the shack you could always find warmth—and plenty of misinforma-

tion. I remember Boomer Ransome telling us that he'd worked for every big road on the continent and could name every type of engine ever built. One night he said he could stall any locomotive by driving two spikes tight against the drivers. Just then a mighty 5300 came up on the hump, so we made Ransome come out to demonstrate. He drove the spikes all right, but Jim Morgan, the hogger, just eased the big fellow over them as if they weren't there. Ransome cried foul. That 5300 had a booster engine under the cab to help her start trains of tremendous tonnages.

Those 5300's were really something. Their firebox was as big as the floor at Danceland, and the fireboys told me that they often tossed thirty tons of coal into them over one division. None of them at that time had mechanical stokers, but they'd haul a big load.

We would stand in awe as they passed westbound with a string of empties, the smoke streaming from their squat stack and their big drivers turning faster and faster as they neared the yard limits. Sometimes the hogger would give us a thrill when he opened the cylinder drains and she'd go by *sweesh, sweesh, sweesh,* with white streaks lancing out each side. Then when he blew for the diamond we'd be happy as kids. As he cleared the yard the tempo would increase and a few minutes later the drumming roar of the exhaust would come back to us loud and clear through the frosty air.

"He's balling the jack now," somebody would say and he didn't mean dancing.

Then faint, but clean would come that sad wailing *oowah-wah-wah* of the whistle. It was a satisfying sound, not the miserable apologetic honk of a diesel airhorn that sounds like a dying duck.

Looking back, I'd say we were no better than kids, for we'd stand open-mouthed watching the great 2700 class passenger engines sliding by with their strings of richly varnished Pullmans. They were bright in gleaming black coats, the tires of their big drivers painted white. Gold lettering glittered on the tender and the cab.

They seemed to work such easy steam. No roaring "get out of my way," like the powerful road jacks, just a gentle swish as they passed through the yard and hit the main drag. To look at them you'd never think you were seeing the fastest train in the world for the distance —as, indeed, you were. The *Imperial Limited's* regular coast-to-coast run took less than sixty hours.

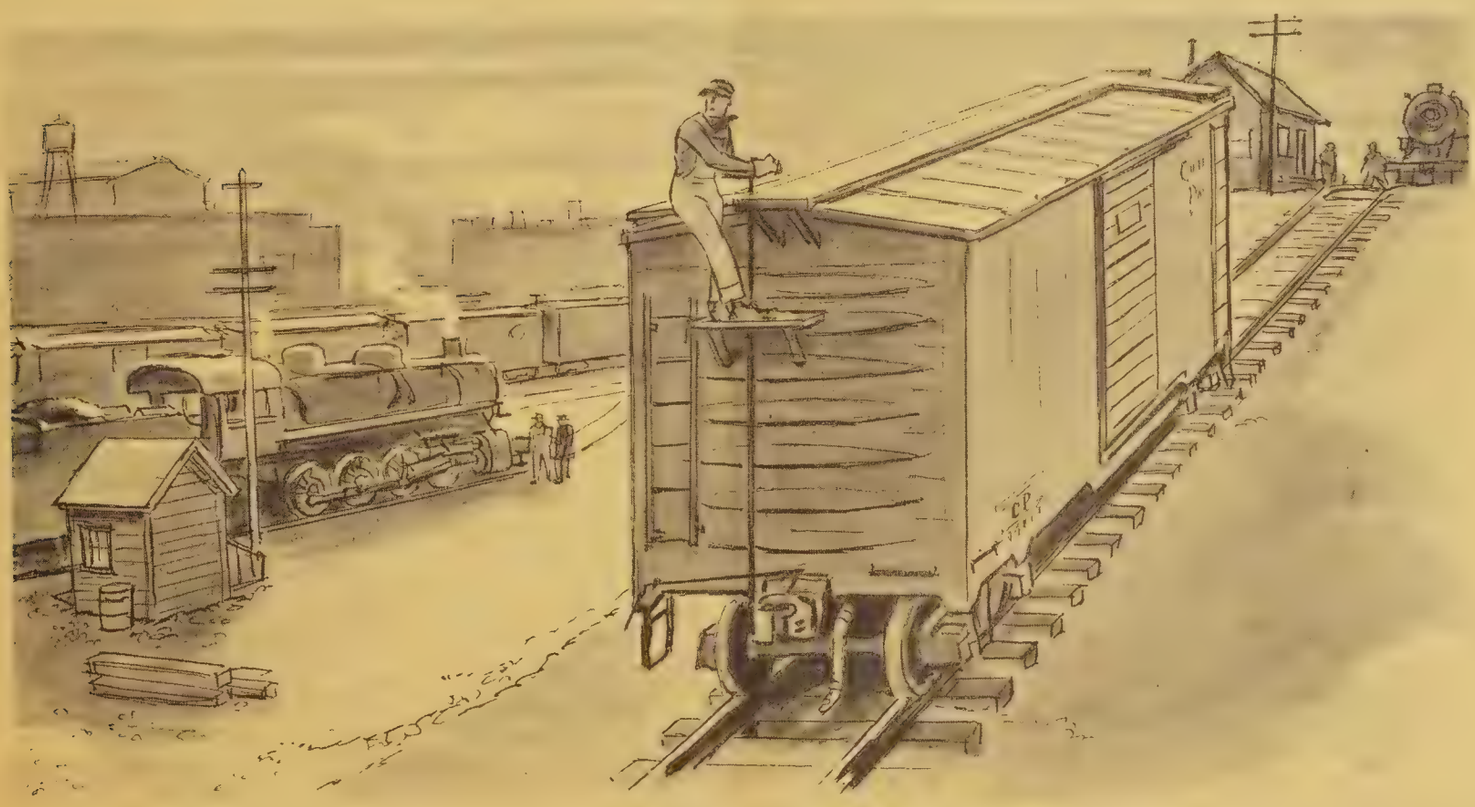
Their exhaust seemed to ripple. The smoke fanned behind flat and black, then gray, as the volatiles burned off the coal and went out as waste. Many admired, and still do, the immense clouds of smoke and steam flying from the mighty engines; but that, as much as anything else, was their death warrant, for the most wasteful type of boiler known to engineering is the locomotive type. It has no combustion chamber to burn off the volatiles, which are the most valuable parts of coal.

But we didn't think of that in those days. We sat in the cosy heat of the shack while waiting for trains, reminiscing and wisecracking. But with icy weather it wasn't much fun any more. Bleeder valves, air cylinders, and even locomotives froze unless they were winterised by extra insulation. Over at Port Arthur three cars with locked brakes slid along an icy rail into the unloading shed and kept on going right into the lake.

The night was cold, almost forty below zero. It was our last night. The middle shift was to be laid off. We filed out of the shack and up the hump. The bull hump bawled out:

"Two for Number One! Long alley!"

The train was hot, but Number One was a long alley on the far side of the



For the benefit of youngsters who don't know, a hump is the mainspring of what is politely termed *gravity switching.*

Automation is pushing the hump riders into the sunset. Pictured here is the truck scale on the crest of the hump in the Canadian Pacific's freight terminal yards at Cote St. Luc in Montreal, where the cars are weighed while in motion.
Canadian Pacific Railway

yard, so I let them roll. I hid down deep in my high sheepskin collar to escape that cruel wind. As the joints clicked by I hunkered down lower and then, for some reason I'll never know, I turned and looked ahead—but it was too late. Number Three was foul of the lead!

Before this registered in my mind I hit—hard. There was a thunderous crash and the cut stopped dead, but I kept going. As I flew through the frosty air I couldn't help thinking, "There's going to be a helluva bump and I will fall on the rail."

I was right on both counts. But I managed to roll clear of the rail, and just as I passed out I felt the journal boxes brush the long peak of my cap as the cut went by. Later I learned they were just pulling that alley and had bumped the string foul when coupling.

I came to on the floor of the yard office where some bright citizen poured a smash of brandy down my throat. After that I went to a hospital. X-rays showed no bones broken, but it took me seven months to get over that jolt.

That ended my railroading except for a couple of months switching on the Illinois Central in Memphis. But it didn't end my love of steam power. During the following summer I often hung around the yard, mostly to watch the silk train come through at a time when the maddest race in railroad history was on.

Every road of any importance with a coast-to-coast hookup in the United States and Canada was competing for the silk contract. Year after year the Canadian Pacific won it and no wonder. Their silk train had a clear track right across Canada and she stopped for nothing.

The silk came in from the Orient on the CPR's *Empress* liners that docked at Vancouver. A train of express cars was waiting on the pier; and when the last car was loaded and locked she lifted her tail and really got going. Trackwalkers and section gangs through the mountains kept every inch of line clear so the big doubleheader could roar through safely.

Once clear of the mountains and out on the flat prairie with the long straight track ahead, that train flattened out like a greyhound. Her exhausts were a continous roar as her piston rods flashed too fast for the eye to see. Firemen working like Trojans in the glare of the furnace blasts were spelled off now and again by the head-end brakeman. One and all threatened blue murder to any hogger who blew a hole in the fire as the white-hot coal danced on the quivering grates.

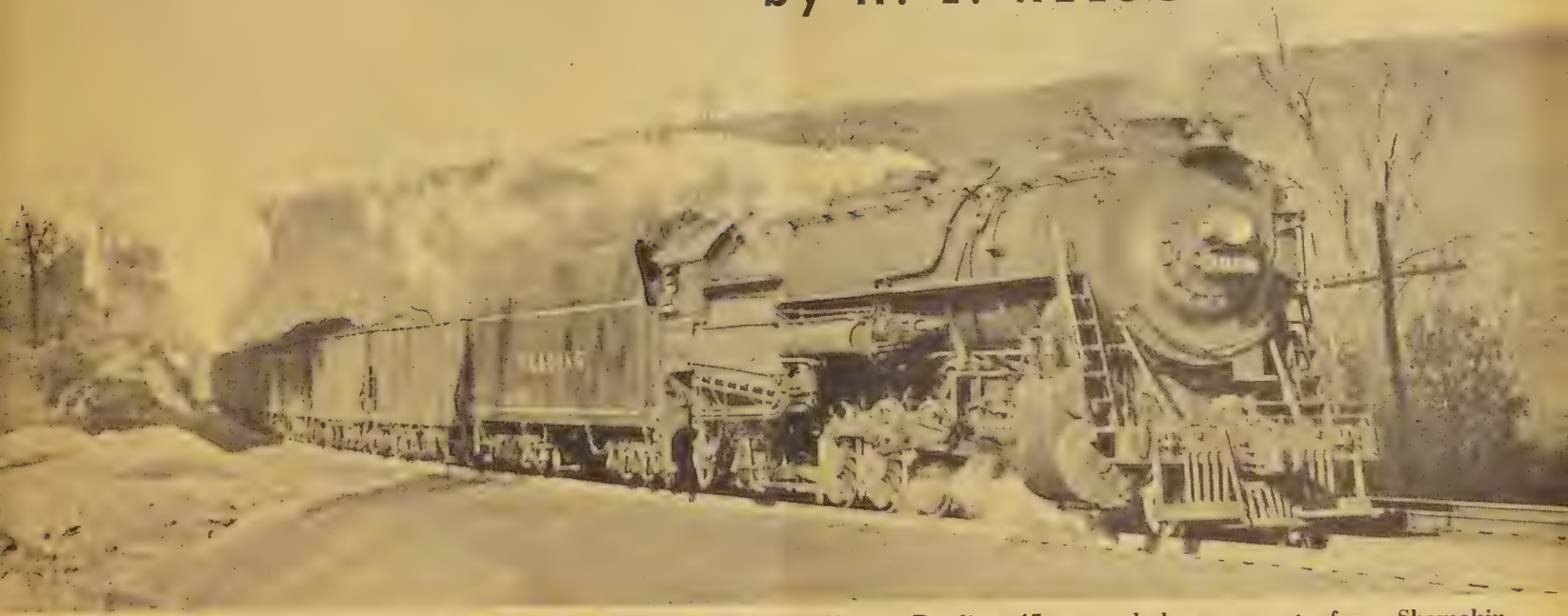
Before that train hit Fort William an army of car knockers had lined up and as soon as the string stopped they swarmed over her like ants. Switch crews had the crummy off and another one on in a minute. Less than five or six minutes later, she blew for the yard and highballed out. The crew that had brought her in stood around half dazed by the terrific strain they'd been under. Yeah, the silk train was a wonderful thing—until a thread called nylon displaced it.

The other day I was wandering around a Canadian Pacific yard. I saw a diesel switcher doing her stuff. A very efficient job, but it could never displace the grubby yard goat in my garden of memories. Up in a tower a man pressed a button. A switch clocked open and turned a car off into a sidetrack. Whatever slowed it down was not a rider.

There are still a few humps left for riders in the railroad yards, but they are passing out inexorably, along with steam engines and the glory that was railroading, the flaming red glory of a sun that is setting forever on the time-honored hump rider. ●

TEN-DRIVERED ENGINES

by H. L. KELSO



Third article in a series on locos with ten driving wheels. (Above) Reading 45-car coal drag en route from Shamokin to St. Nicholas, Pa., in 1952. Lead engine is 2-10-2 No. 3018, built by Baldwin in '31, with a pusher 2-10-2 at the rear
R. R. Malinoski, 246 Madison Ave., New Milford, N. J.

THOSE of you who have followed our series on locomotive history will recall and honor the name of Alexander Mitchell, that slender bearded genius who served as master mechanic of the Lehigh Valley long ago and originated the 2-8-0 (Consolidation) type, which first hit American rails in 1866.

That machine, mighty though she was, proved to be but a featherweight as compared with the world's first 2-10-0, that went to work on the "Valley" a year later. Norris Brothers outshopped the ten-drivered titan at Lancaster, Pa., at which time she was the heaviest locomotive ever to burnish the rails! Weighing 97,600 pounds and sporting 20x26-inch drivers, the so-called "Mitchell monster" was the talk of motive power men around the globe.

But the huge 2-10-0 did not do well on the sharp mountain curves in Pennsylvania, and was rebuilt into a 2-8-2 (Mikado) by replacing her rear driving wheels with a trailing truck. This raises the possibility that Mitchell may have designed the first 2-8-2 as well as the first Consolidation. Regardless, he was one of our nation's earliest advocates of mighty and massive locomotives.

Among those who held with Mitchell on that score was President Sanford of the Central (later Southern) Pacific, a road plagued with the problem of hauling profitable freight trains out of San Francisco eastward over the Sierras to Reno and Ogden as well as southward over the Tehachapis to Los Angeles. Those were mountainous runs.

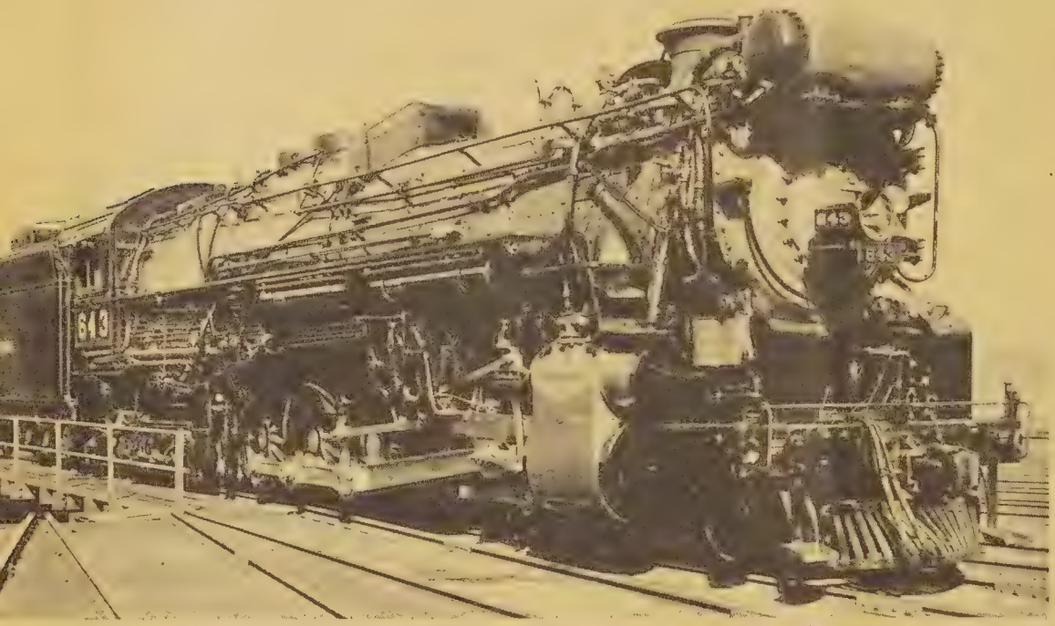
Sanford's initial experiment with big power was a 4-8-0, built at Sacramento in 1880, which performed so prodigiously over mountain grades that he envisaged a far mightier engine. The story of the latter comes from David L. Joslyn,* a leading authority on SP power.

Sanford ordered his general master mechanic, A. J. Stevens, to "Build the biggest locomotive in the world." And Stevens did. Howard Stillman helped him to design her. *The Sacramento Union* reported the matter Nov. 1, 1883, as follows:

At the Central Pacific Railroad shops in this city, there is now nearing completion a giant locomotive to be named

*Thanks to The Railway & Locomotive Historical Society, Inc., for permission to reprint the gist of Dave Joslyn's account from its Bulletin No. 94, copyright 1956. Incidentally, Dave is also a Railroad Magazine contributor.

Pennsy freight out of Cleveland doubleheaded by 2-10-0's Nos. 4478 and 4456.
C. C. Grayson, Longview, Texas



Texas & Pacific 2-10-4 (Texas) type No. 643, Class I-1C, built by Lima in 1928 with 29x32-inch cylinders, 63-inch drivers, 255-pound boiler pressure.

In the waning years of the Steam Age, the Pennsy relied considerably on its Class J-1 home-made 2-10-4's, including the mighty No. 6456, built in 1944.
Bud Rothaar, 757 Pierpont St., Rahway, N.J.

***El Gobernador*, or *The Governor*. It is being constructed with the greatest care, of the finest materials, from the designs of A. J. Stevens, General Master Mechanic, and is different from designs of other locomotives built for this and other roads. It will be the largest locomotive ever constructed, being 20 tons heavier than an ordinary locomotive, and much fear is being expressed that it will be too heavy for the track. But Mr. Stevens holds no fear of that and has made his calculations such as to avoid any danger from that source.**

The locomotive was fitted with a Stevens special design of valve gear employing but one eccentric and reversing from a curved rocker. This type gear was the only one Stevens ever built. The cylinders were equipped with rotary balanced valves for double admission and exhaust. The valves were placed as near the end of the cylinder as possible, to save clearance space that otherwise would be filled and exhausted uselessly with steam.

The engine boasted clasp brakes and steam reverse gear, as well as the conventional bustion chamber. The back pair of drivers had a lateral movement of one-half inch in each direction, permitting the locomotive to take a 15-degree curve, although none of the Central Pacific's curves was quite that short.

On her trial trip the rotary valves were found to be of no value. Hanging on Dave Joslyn's wall is the original drawing, No. 2282, dated Nov. 8, 1883, and entitled "Rotary valves and gear for 21x36" locomotive." This drawing was salvaged from a scrap heap. A close study of it shows that the gear would not work.

So the gear had to be taken off, and new cylinders and the first of the Stevens double valves were applied with a type of Stevens valve gear such as no other Central Pacific locomotive ever had. This worked perfectly.

In March, 1884, No. 237, *El Gobernador*, went into service. She was dismantled to some extent and sent down to Bakersfield, Calif., partly on flatcars and partly on her own wheels. Tried out as a pusher on the heavy trains over Tehachapi Hill, she scored a dismal failure. The 21x36-inch cylinders were out of proportion to the boiler, and no fireman could keep up steam on the new giant.

After a few years of service, and some alterations which did not make the engine serviceable, she was sent back to Sacramento. There she sat around the shops for a couple of years. In July, 1894, she was dismantled. Her

NYC 7191 worked at hump yard in Windsor, Ont., in World War II.

Frank Lisowek, 9936 Bordeau St., Detroit 4, Mich.

Chicago & Illinois Midland 2-10-2 type No. 702.
Collection of Richard Boggiano, 326 Audubon Ave., N. Y. C.

boiler was used as a stationary boiler in the machine shop until it was scrapped in 1905. Thus ended the SP's purchase or building of ten-drivered locomotives until the year 1925.

Readers will recall our account of the *Prosperity Special,* a train of twenty Santa Fe type engines (2-10-2's) which the Baldwin Works in Philadelphia sent to Los Angeles in the early Twenties. We did not include an interesting story about one of the engines, an engine improperly counter-balanced. The SP's Mechanical Division found this defect and posted the following notice in the cab: "This engine must not be operated faster than 25 miles per hour. Counter-balance is out."

The locomotive in question served as a helper out of Indo, Calif., being cut out at Palm Springs (now known as Garnett) to return to Indio for her next job. On one trip the dispatcher gave her engineer a message at Palm Springs to return to Indio at passenger-train speed, about 50 miles per hour. The hogger of the lame 2-10-2 objected sharply, citing the notice posted in his cab. Ordinarily, such protests are honored, but that particular runner had a bad reputation for complaining and stalling. Knowing this, the DS sent him a crisp order over the superintendent's signature, "Do as instructed."

Well, the fellow did so, kinking the rails for 20 miles or so, and there was hell to pay. Brownies a-plenty were dished out, but the SP paid the costs for new rails plus the labor of installing them.

This brings up a couple of questions. Why was a mere one 2-10-2 in the *Prosperity Special* improperly counterbalanced? Who did what to alter those locomotives? How about it, Dave Joslyn?

Most beloved of all the SP's tendrivered engines were the 49 three-cylindered 4-10-2's built in the years 1925-'27. I discussed them with several engineers and firemen, and not once did I hear a disparaging remark about these well proportioned machines which Alco had outshopped at Schenectady, N. Y. With booster, they rated a tractive effort of 96,840 pounds. Engine crews referred to them as free-steaming and easy-riding.

The SP never bought any other three-cylindered locomotives. But the Union Pacific, whose most westerly trackage in 1925 was the Los Angeles & Salt Lake line, purchased ten three-cylindered 4-10-2's (originally numbered 8800-8809). The latter were not as heavy or as powerful as their SP sisters, having no boosters and rating but 78,000 pounds of tractive effort. Eventually they were rebuilt to two-cylinder jobs and spent their final days in helper service between Victorville and San Barnardino, Calif.

Incidentally, both the editorial staff and I welcome comments, however critical, on this series of articles. But it does seem to be belaboring a point for readers to pay much attention to mere printer's errors. Some fans actually seem to be gleeful in the way they pounce upon a spot, for instance, where the printer inadvertently transposed two digits. I think it gives them a sense of importance to call attention to someone else's mistakes.

A different kind of criticism comes from the well-informed Bert Pennypacker of Philadelphia, who writes:

Mr. Kelso says the Southern Railway held off dieselization for years and finally turned to it with reluctance. Now, it is fine to be sentimental about steam power, but surely he doesn't expect the readers to be so naive as to believe such a statement.

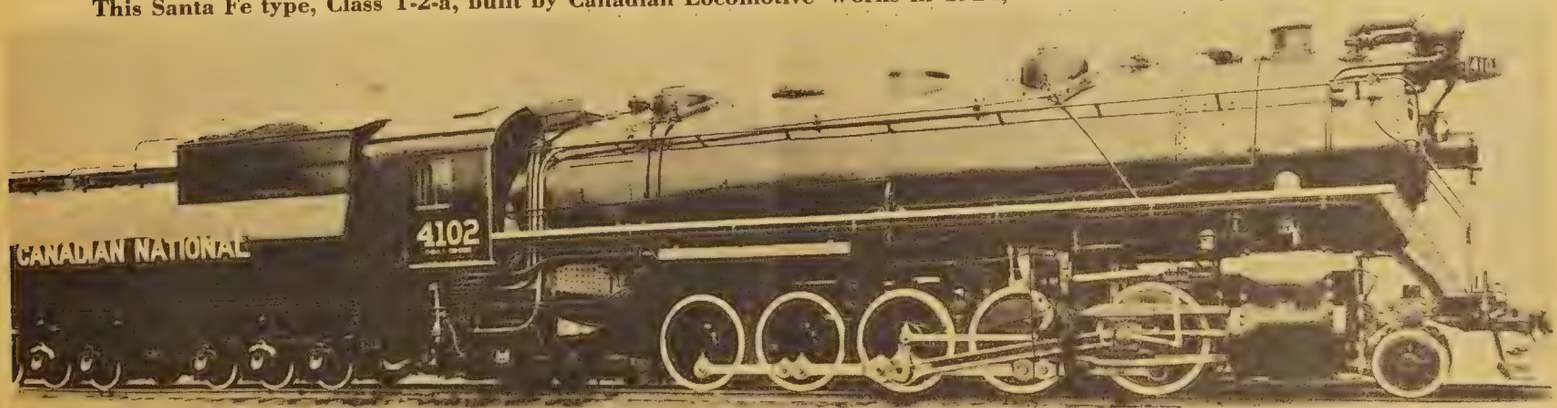
Truth is, Southern actually bought the very first EMD demonstrator freight diesel, the four-unit No. 103 FT model that toured the country. Southern was a pioneer in buying and using diesel power for all types of road service and has many of the older units on its roster today. As we all know, the only reason for steam power's continued use for years after the diesel "invasion" were economic. Steam power remained in certain locations simply because the railway lacked capital to buy diesels sooner.

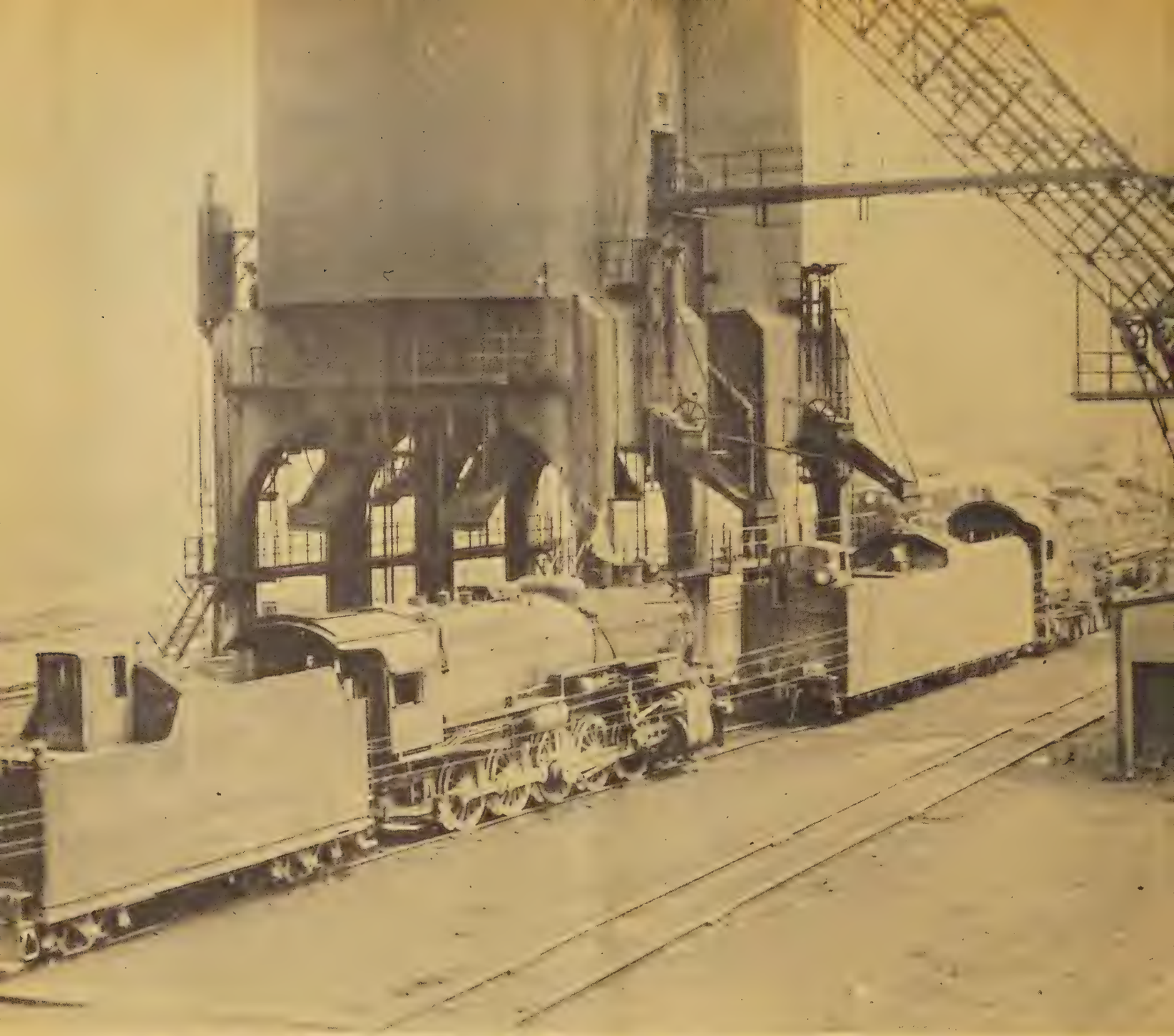
Now, Mr. Pennypacker has a better-than-average knowledge of locomotive history, but he should realize there is much more to railway personnel than brass collars and stockholders guided solely by the profit motive. There is considerable sentiment in just about every industry, including the railroad industry.

Take the Southern, for example. A

Canadian National Railways

This Santa Fe type, Class T-2-a, built by Canadian Locomotive Works in 1924, had 29x32-inch cylinders and 57-inch drivers.





Four years ago: Pennsylvania Railroad 2-10-2 No. 4882 waits at coal chute in Columbus, Ohio, behind a Pennsy Texas type.
Allan Sherry, 5445 Netherland Ave., Riverdale, N. Y. (producer of new loco sound recording, "Extra 1235 East")

railway that goes so far as to publicize one of its own famous wrecks, as the Southern has often done with *The Wreck of the Old 97*, cannot honestly be charged with lack of sentimental feeling. No road took greater pride in its steam power than the Southern, and if you ever rode behind one of those beautiful, green, highly-polished steam masterpieces of mechanical efficiency you will understand what I mean. Some Southern engines had the names of veteran hoggers painted in gilt on the side of the cab. That, my friends, was sheer sentiment.

It should not be hard for Mr. Pennypacker to believe that, for the above reasons and many others, the Southern Railway personnel as a whole *reluctantly* accepted the diesel—accepted it because they had no choice. At the time the road became fully dieselized, its magazine, *Ties*, carried a sentimental article about the passing of steam power.

And now Bert Pennypacker continues:

Mr. Kelso says the Pennsy had 125 N-2sa's in service in 1947. Actually, they had 130. These were used mostly on the Western Region and were well liked. The L-1s Mikados (2-8-2) seldom appeared on the Western Region. During World War II some Mikados ran on the Western Division but they were not considered nearly as good as the 2-10-2's. Naturally, the Santa Fe types were bigger and could better handle a tonnage train.

Bert is, indeed, charitable in the above statement. Turning now to the Reading, Bert's favorite road, we go along with him in resenting the caption (Aug. *Railroad*, page 22) which refers to the Reading's 3000 as "powerful but ungainly." But that, of course, is a matter of opinion. In my book, all 2-10-2's were beautiful, except for the early ones on the Santa Fe, which were truly ungainly, albeit powerful and utilitarian. Quoting Bert again:

Yesteryear: Central Vermont 708 (2-10-4) crosses Georgia High Bridge, Vt.
H. W. Pontin, Rail Photo Service, 93 Massachusetts Ave., Boston, Mass.

Comparing specifications of the Pennsy NL's with the Reading 2-10-2's, it seems that the power of the Pennsy machines should have been closer to that of the Reading's, had the N-1's been designed a little better, since most dimensions are very similar.

The Reading had twenty-one 2-10-2's (3000-3020), the first eleven being rebuilds from compound 2-8-8-2's, the rebuilding being done at Reading shops, in 1927-'29. No. 3010 had Caprotti valve gear, which was discarded after several years. In 1931, Baldwin built the final ten and these were the most powerful 2-10-2's on record, with a tractive force of 92,570 pounds. They had the distinctive Reading appearance, with wide, modified, Wooten firebox and large gold lettering and striping which really looked smart. Around the end of World War II they were cross-counterbalanced and equipped with high-speed drifting valves to reduce back-pressure in the cylinders. Once they got a heavy train rolling, they glided along as smoothly as a passenger engine.

Reading 2-10-2's were built for cross-line service between Allentown and Harrisburg, Pa., and between Harrisburg and Hagerstown, Md. Their final years of service were spent in the anthracite region around St. Clair, Gordon, and Shamokin on pusher hump, and coal-run assignments. However, they are most fondly remembered along the rolling hills of the Pennsylvania Dutch country.

We come now to road tests of the Chesapeake & Ohio's 2-10-4's. In September, 1930, the C&O placed in service the first of an order of forty such locomotives. These were designed to handle 11,000-ton trains on 0.2 percent grades, and in that year they inaugurated a new engine operational factor between Russel, Ky., and Toledo, Ohio.

At that time about 80 percent of the C&O's freight traffic was bituminous coal. Weekly car-loadings normally exceeded 24,000 cars. Russell Yard was the concentration point for this traffic and most of it moved westward from Russell to Toledo.

The age-old cry for longer locomotive runs, faster train speeds, and reduced operating charges posed an operating problem that, in those years, the C&O solved temporarily by adding these locomotives to the roster.

Between Russell and Columbus, Ohio, where coal trains were broken up before the advent of the big 2-10-4's, is a distance of 110 miles with a ruling grade of 0.7 per cent. 1.25 miles in length. The rest of the profile between the two cities ranges from level country to 0.2 percent grades. Before the 2-10-4's went into service, single-expansion articulated locomotives of the 2-8-8-2 type handled the trains which averaged some 140 cars, a total load of 10,500 actual tons. When the trains arrived at Columbus they were broken up and dispatched to Toledo in tow of 2-10-2 and Mallet compounds.

The C&O operating personnel realized that this condition could be improved by motive power that would handle the entire train in a continuous move from Russell through Columbus to Toledo, thus eliminating the re-handling of trains and a locomotive change at Columbus. The purchase of beautifully-designed 2-10-4's provided the answer.

Road tests were made with the C&O single-expansion articulated locomotive Class H-7-a. These tests showed it was feasible to run through trains after borrowing and using a 2-8-4 type engine, Class S-3, with 70-inch driving wheels as against the C&O's 2-8-8-2. The Erie engines did a great job when pitted against the C&O's articulated engines, but it became evident that an engine with a larger driving-wheel diameter than the 2-8-8-2's and a greater power than the Erie engines was needed to wheel a profitable tonnage through run between Russell and Toledo.

A study of the tests of the Erie and the C&O articulated brought about the adoption of the 2-10-4, Class H-7-a, as the only locomotive that could accomplish the desired results.

Consequently an order was placed with Lima for forty 2-10-4 types, which went into service on that road as Class T-1. The first of the lot was completed in September, 1930, and after a 90-day test the judgment of the C&O mtchanical bigwigs was justified. Thus the ten-drivered locomotive of the rigid type was actually superior to an articulated 2-8-8-2.

When writing of ten-drivered engines, we cannot overlook the great part these machines have played on the Duluth, Missabe & Iron Range. This road has the amazing record of having nearly 95 percent of its gross tonnage in the transportation of iron ore from the mines to Duluth, where the ore is transferred to lake steamers and conveyed to ports in the Cleveland area.

Numbered among the steam titans on that road were mighty 2-10-4's that originally were owned by the Bessemer & Lake Erie, these engines coming to the Missabe in 1951 when the Bessemer turned to diesel. The first ten were built by Alco in 1937, the remaining eight being built by Baldwin for the Bessemer between 1941 and 1944. All were equipped with 31x32-inch cylinders and 64-inch drivers and had a steam pressure of 250 pounds per square inch. Engine weight alone varied between 519,740 and 523,600 tons. Tractive effort, 96,700 pounds.

As late as 1955 the Missabe had

four 0-10-0 yard engines in service, these being Baldwin-built in 1928.

The mention of 0-10-0 may bring to mind an ungainly mass of steel, the old steam clunker in its ugliest and most unromantic form. This mental picture would not always apply. You should have seen the good-looking 0-10-0 that Baldwin built for the Alton & Southern in 1930. The A&S, a subsidiary of the Aluminum Company of America, operated in the East St. Louis area over a line that is generally known as the East St. Louis Outer Belt Line.

This behemoth was powerful, exerting a tractive effort of 96,300 pounds when her Franklin tender booster was cut in. Designed to negotiate 13-degree curves, she was truly the answer to the needs of the A&S operating officials.

When thinking of locomotives, we often think of steel, iron, and brass, but in this case we must add aluminum. The boiler and cylinder jackets were of aluminum sheet. In addition, aluminum alloy was used for the main and side rods, crosshead links, combination levers, valve rods, and eccentric rods and cranks. The running and cab boards, the bumper steps, and some other parts of the engine and tender were cast aluminum.

Compared with a locomotive of the same type and exerting a tractive force of around 78,000 pounds, the saving in weight on the driving wheels on account of the aluminum construction was estimated at 10 percent. In addition, the reduced weights of the reciprocating parts exerted an important influence in the amount of counter-balancing required. The tender had a water capacity of 12,000 gallons and a fuel capacity of 18 tons. And, believe it or not, this giant was hand-fired. No mechanical stoker was applied, as the engine was used on short runs only.

Getting back to the DM&IR, we find on the steam roster nine 0-10-2's which went into service originally on the Union Railroad, a subsidary of the U.S. Steel Co. Built by Baldwin for the Union in 1936-'37, these machines are the only 0-10-2's ever produced with this original wheel arrangement and the only engines ever known as the *Union* type. They were transferred from the Union Railroad to the DM&IR in 1949.

Also on the DM&IR's roster were fifteen Santa Fe type locomotives (2-10-2's), six having been built by Baldwin in 1916 and the others by Alco in 1919.

Let us turn again to the mighty and efficient 2-10-4's. No story on the type would be complete without relating, at least briefly, the magnificent role the 2-10-4 has played in transporting coal on the Burlington. The coal lines include the trackage of the Beardstown Division between West Frankfort, Ill., and Herrin to Bushnell, Ill. Also the Galesburg Division between Bushnell and Galesburg, where coal trains are broken up for movement east, west, and north. Actually, the coal runs extend from the Illinois mines some 600 miles northward to Minneapolis and St. Paul.

In 1920, coal trains on the Burlington averaged a mere 2500 tons. In 1929, when eighteen rugged 2-10-4's, Class M4, were assigned to this traffic, the tonnage average per train was 8,800!

It should be of interest to record a coal run of an M-4 Class engine that appeared on the train-sheets back in 1929. The engine pulled out of Centralia at 4:20 a.m. with 121 empty gondolas, arriving at West Frankfort at 7:30 a.m. Leaving West Frankfort at 9:45 a.m. with 129 loaded gondolas, 8,842 tons, it returned to Centralia in exactly three hours, non-stop.

At Centralia the engine was serviced and left that town with a northbound train of 122 loads, 8,817 tons, to Galesburg. After taking coal and water at Galesburg, she wheeled 121 empty gondolas and took off for Centralia, thus completing a round trip of 513 miles in 23 hours, 45 minutes. There, gentlemen, was a locomotive that could, and did, pay big dividends.

Bear in mind that the Burlington used 2-10-4's in other regions, and they all turned in superb performances for fuel saving and dependability as well as smoothness in handling trains. Truly, the 2-10-4 was a great steamer!

In our next article we will deal with the 2-10-4, the Decapod type. ●

Oct. 5, 1958: In Wyoming's wide-open spaces we see Colorado & Southern's 902, a 2-10-2 type, on the Wheatland turn going back to Cheyenne.
R. R. Malinoski

Santa Fe 2-10-2 type No. 3906, photographed April 16, 1950, was built by Baldwin Locomotive Works in 1926. After twenty years of heavy-freight and mainline service, she was given the turtleback-type tender pictured here (originally a tender for a 2-10-10-2 Mallet compound) and assigned to the then-new hump-retarder yard in Argentine (Kansas City, Kansas).
Collection of Charles E. Winters, 3717 E. 49th St. North, Kansas City, Mo.

R. R. Malinoski

March 3, 1956: Baltimore & Ohio 2-10-2 No. 6185, Class S-1, with extra west going from Cumberland, Md., to Connellsville, Pa.

Information Booth

Old tradition ends. For 90 years railroad pay-cars rolled over North America but only in daytime, guarded by six-guns. The final "money wagon" (shown here) was on Canadian Pacific train 518, *The Scoot*, which crossed Maine between St. John, N.B., and Lac Megantic, Que., making all stops en route to pay CPR employes. Began running in 1914, ceased last July 5.
Photographed by David Plowden at Greenville Jct., Maine

1 *How far can a steam-locomotive whistle be heard on a boiler with* 200 *pounds pressure?*

Since a sound's carrying distance depends on such factors as location, weather conditions, and so on, we cannot answer this question specifically without further data. However, on a still, clear night you could hear the whistle five miles away.

2 *What is the steepest grade on the Northern Pacific going east over the Continental Divide?*

It is 2.2 compensated.

3 *Someone said that the Bangor & Aroostook has a novel type of potato car. Tell us about it.*

BAR officials think it will revolutionize the transportation not only of potatoes but also of onions, oranges, apples, and other round vegetables and fruits. It loads and unloads automatically, eliminating much of the labor of repacking operations.

By the old method, BAR potatoes had to be transferred from 100-pound bags to 10-pound polyethylene bags for the consumer, an expensive and sometimes damaging process for the shipper. The new car, an insulated boxcar painted BAR red, white and blue, has an inclined floor to make potatoes flow by gravity into unloading conveyors.

4 *Why are Class Y6b Norfolk & Western locomotives credited sometimes with tractive effort of* 152,206 *pounds for simple and* 126,838 *for compound and at other times* 170,000 *and* 132,000 *respectively?*

Only the first two figures are right.

5 *Has Marshall Kirkman's six-volume set of books,* The Science of Railways (1916 *edition, published by Cropely Phillips Co.), any value as a collector's item? Who was Kirkman?*

Probably worth about $10. Some years ago the books sold at 5 cents a copy. So many railroad books have come out over the years that relatively few of the old sets are sought by collectors.

Marshall Monroe Kirkman, born in Illinois in 1842, began railroading in 1856 as a Chicago & North Western telegraph operator, and in 1889 became second vice president of the company. He was a prolific writer. In 1894 he published *The Science of Railways,* which went into several editions. He died about 50 years ago.

6 *How does the Bessler engine work?*

Twenty years ago, the Bessler steam power theory was applied to some passenger cars, including one on the New

Haven. In principle, steam cylinders operated truck wheels through gearing. The same principle would apply to locomotives. The Baltimore & Ohio considered building a locomotive, a 4-2-2-2-2-4, of this type, but never did.

7 *Give us a history of* Railroad Magazine *and its predecessors.*

This publication, with a red cover, appeared first in October, 1906, as *The Railroad Man's Magazine.* It was founded by Frank A. Munsey of New York City, a former railroad telegrapher who had amassed a fortune from a chain of newspapers and magazines.

The first issue boasted 192 pages, but no pictures, and sold at 10 cents a copy. On its opening page an editorial written by Munsey himself began with these words: "The railroad, second only to religion, has been the greatest civilizing and enlightening force in the world." Among the feature articles in that original issue were "A Whole Nation on Wheels" and the first of a series on "Great Train Robberies of the United States."

The magazine came out regularly every month until Nov. 9, 1919. Then it became a weekly. It remained a weekly until Jan. 18, 1919, when Munsey merged it into another of his weeklies, *Argosy,* and lost its identity.

About ten years later "Boomer Bill" Hayes, a young fireman-telegrapher, remembering the old *Railroad Man's,* decided to publish a similar magazine himself. But he did not have enough money to swing the deal, so he sold the idea to the Frank A. Munsey Co., which had taken over the Munsey interests after the old man's death.

As a result, *Railroad Man's* reappeared as a monthly in December, 1929. It came out regularly every month thereafter until August, 1955, when

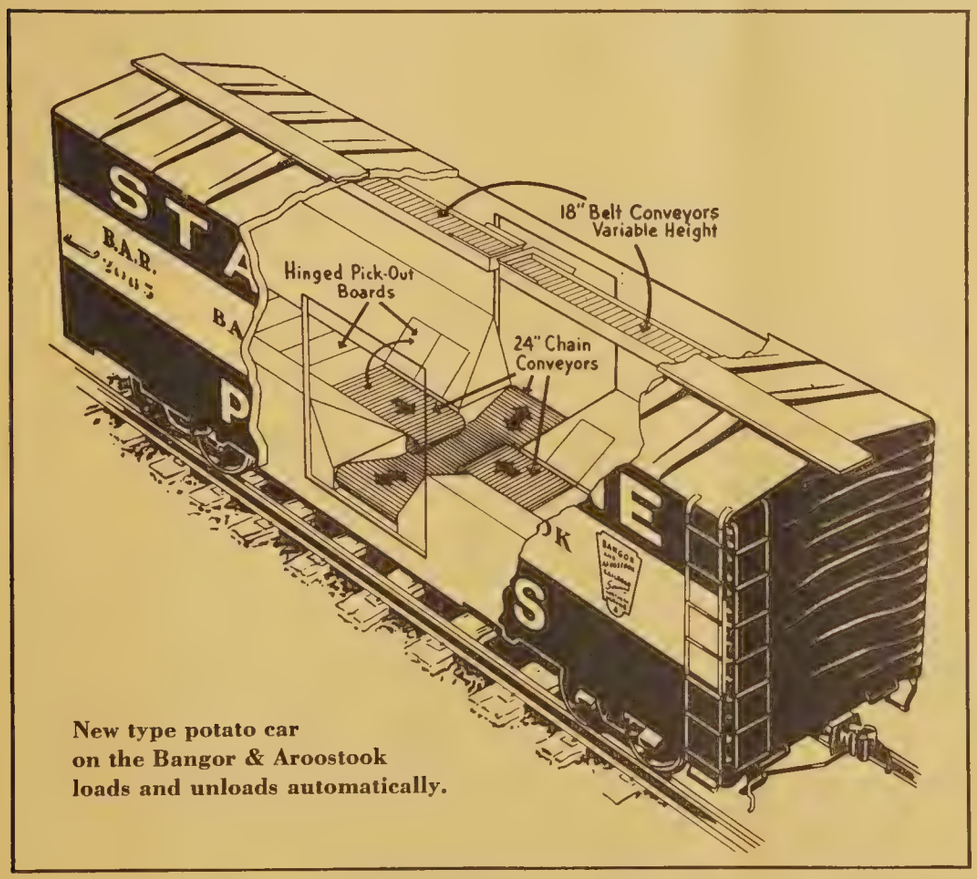
ASK BARBARA: Railroad questions are answered here by our research expert—as many as space permits. Top priority is given to subjects of general interest. Address Miss Barbara Kreimer, *Railroad Magazine,* 205 E. 42nd Street, New York 17, N. Y. No replies will be sent by mail.

publication was changed to every two months so as to give each issue a longer run on the news-stands. The bi-monthly status is still in effect.

Meanwhile, for a few years in the 1930's the magazine had been known as *Railroad Stories.* Its present title, *Railroad Magazine,* dates back to September, 1937.

The Munsey chain of magazines, including *Railroad, Argosy,* etc., was taken over in 1942 by Popular Publications, Inc., Henry Steeger, president, and moved up from downtown Manhattan to the Grand Central Terminal area. *Railroad's* present page size was adopted in September, 1953.

Boomer Bill quit the magazine long ago and went back to railroading. Today he is Executive Assistant in charge of the Rock Island's public relations and advertising. Head editors of *Railroad* since he left have been Freeman Hubbard, Henry Comstock, Ken Campbell, and again Mr. Hubbard. The earliest issues of *Railroad Man's Magazine* are much sought-after as collector's items.



New type potato car on the Bangor & Aroostook loads and unloads automatically.

8 *How does Young valve gear work?*

This is a form of the cross-connected Walschaert valve gear. The link is driven from the crosshead, and the combining lever receives its movement from a connection to the top of the link on the opposite side of the locomotive. This mechanism really should be explained at great length, with diagrams, but space does not permit it. You can find the technical details in many good books about locomotives, including the *Locomotive Cyclopedia.*

Compound articulated (2-8-8-2) engine No. 2171, built at Roanoke shops, with 25-and-39x32-inch cylinders and 58-inch drivers.
Norfolk & Western Railway

Mallet No. 4000, Class Z-6, with 4-6-6-4 wheel arrangement, built by Alco in 1937. The Great Northern had only two of them.
Great Northern Railway

9 *How many all-Pullman trains operate in the U.S. the year round?*

Only three: the *Broadway Limited* (Pennsy). *The Pittsburger* (Pennsy), and the *Panama Limited* (Illinois Central). The *Broadway,* which made its maiden run between New York and Chicago in June, 1902, is still well patronized after 58 years, although numerous passenger trains on various roads have been pulled out of service for lack of patronage. Eastbound time for the *Broadway's* 908-mile run is 15½ hours, westbound 16 hours.

10 *Give dimensions of main waiting-rooms in (a) New York's Grand Central Terminal, (b) New York's Penn Station, and (c) Philadelphia's 30th St. Station? (d) Where can I buy colored postcards of railroad stations?*

(a) 116 feet high, 270 feet long, 120 feet wide. (b) 150 feet high, 300 feet long, 110 feet wide. (c) 95 feet high, 290 feet long, 135 feet wide. (d) At Union News stands in the stations and, in fact, almost any place where picture postcards are sold. Such cards are not so varied or plentiful as they were in pre-automobile days when railroad stations were much more important as social centers.

11 *Were the Pennsy BH-50's once 3000-hp single-unit diesels?*

No. Two units were semi-permanently coupled and operated originally as a 6000-hp loco. They were converted from BP-60's between June '51 and April '53. Two of them (four units) are now operating in the Philadelphia area while a number of others are in pusher service between Enola and Altoona on the stiff mountain grades that used to be handled by steam power. Some run out of Northumberland.

12 *Years ago I fired Great Northern Mallet No. 4000, the only time I ever saw a GN locomotive of that series. When were they built and what became of them?*

In 1937 Alco built a number of four-cylinder articulated or Challenger types of the Northern Pacific Z-6 design for the Spokane, Portland & Seattle. The GN acquired two of these 4-6-6-4's in 1939, retaining the Z-6 designation but renumbering them 4000 and 4001. By 1950 both had been resold.

13 *(a) Which was the last steam locomotive Lima built? (b) How long was she in service? (c) Was she scrapped?*

(a) Nickel Plate No. 779. (b) Put into service in May '49, she ran mostly between Bellevue, O., and Buffalo, N. Y., and was retired in July '58. (c) No. She is now being held at Lima, O. The NKP has been asked to donate the 779 to the City of Lima as a memorial.

14 *What are pendulum cars?*

This type was developed to produce a car-body suspension system that would insulate against vibration and maintain stability plus maximum comfort at high speed on ordinary track with safety and economy of weight. Pendulum cars have been used by several roads, including the Burlington, the Great Northern, and the Santa Fe.

15 *What has become of Claremont Railway in New Hampshire, and its rolling stock?*

If you refer to the former Claremont Railway, it is now a part of the Claremont & Concord. If you mean the C&C itself, it still operates between Claremont Jct. and Contoocook, N. H., and between Claremont and West Claremont for freight only.

The C&C has four diesel locomotives: one 70-ton (600-hp), No. 12, and three 44-ton (380 hp) Nos. 13, 15, and 18. No. 18 is being sent to the Hoosac Tunnel & Wilmington Railroad. Other rolling stock remains intact.

16 *Why do present-day timetables show Canadian National and Grand Truck emblems but not the emblems of Canadian Northern or other railways which make up the CNR system?*

Each of those railways, including the Canadian Northern, has been amalgamated into the CNR and no longer exists as a separate company. The Grand Trunk, however, although a CNR subsidiary, has separate operations and officers. So has the Grand Trunk Western, the segment of GT that the CNR operates in the United States.

Running Extra

We answered a query in June by saying there was no standard wrist watch for operating railroad employes. It was true. Since then the Pittsburgh & Lake Erie has broken tradition by authorizing the use of such a watch. P&LE accepted the F. W. Raymond model wrist watch (shown here), made by Elgin National Watch Co., as standard timepiece in all positions for which the Book of Rules requires a standard watch.

The change followed *Railway Age's* publication of an intem on the subject. John W. Barriger, P&LE president, tells us: "As I read this item and reflected upon the fact that non-railroad transportation as well as industrial, military, and technical operations which require equal—or even more complete—accuracy of timing as train operations do, are controlled in respect to time by men who use wrist watches, it seemed to me that the latter should also have railroad approval."

Thereupon Don Fleming, P&LE general manager, reviewed the subject with his staff members and with the New York Central System's Train Rules Committee.. No objections came up, and in due time P&LE adopted a model (retailing at $79.50) somewhat like the U.S. Air Force type but even more accurate. Because of the strong magnetic fields set up on diesel locomotives, a special iron dial had to be developed to shield the watch from magnetism.

The Great Northern,, Northern Pacific, and SP&S are now testing the new model watch, with the possibility of authorizing its use. Even before P&LE's official acceptance, the Bessemer & Lake Erie revised its Book of Rules on Dec. 1, 1959, permitting its employes to use "reliable" wrist watches but not adopting any one model as "standard."

Mr. Barriger lists ten requirements for the standard wrist watch which the P&LE Operating Department insists upon: (1) 23-jewel movement, (2) new balance wheel, Dura balance, (3) unbreakable main spring, (4) special stainless-steel case, indented top, easy to wind, (5) shockproof, (6) waterproof, (7) non-magnetic shield around movement, inside case, (8) non-magnetic steel dial, (9) six adjustments, three of which are position, and (10) movement stops when stem is pulled out for setting.

We defined *blizzard lights* (June issue) as "classification lights on steam engines, presumably bright enough to be seen in a heavy snowfall." W. S. Wicker, Atlanta, Ga., offers another definition. He says they were also the farm and highway crossing markers erected so that when flanged snowplows were clearing the tracks of snow the flanges could be raised and not tear out the ballast, gravel, or planks placed between the rails or on the ties to make a level crossing.

"Where is my father, Alfonso Thomas?" writes Mrs. Bernice Robbins Faircloth, Rte. 3, Box 58, Newberg, Ore. "If living, he is 72. Last heard of firing on the Louisville & Nashville out of Louisville, Ky., in 1916."

"I am taping a collection of locomotive whistles of the Western Pacific and other roads in this area," writes G. W. Woods, (WP engineer), 927 S. Grant, Stockton, Calif. "I am also rounding up old raidroad songs, etc., and info."

Mrs. Mabel Bell (widow of a Grand Trunk brakeman), Box A, Kalamazoo, Mich., ill in hospital, wants to locate her nieces, Mabel and Medora Williams, whose last known address was 1412 Poinsettia, Los Angeles, Calif.

A reader (Aug. issue) asked for a short history of the Lorain, Ashland & Southern. Here it is, from Charles P. Wales, 4107 Old Mt. Vernon Rd., Alexandria, Va.:

In 1897 the Ashland & Wooster was chartered and acquired the Millersburg, Ashland & Greenwich, which had started construction in 1894. The A&W completed 25 miles from Custaloga to Ashland, O. In 1906 its name was changed to Ashland & Western.

The northern section of the LA&S was begun by the Lorain & Ashland, which later became the Lorain, Ashland & Southern. In 1913 the LA&S took over the A&W, and the final route ran 65 miles from Lorain to Custaloga. The LA&S was owned jointly by the Pennsy and the Erie. In 1925 those two roads claimed that the LA&S was running a deficit, including fixed charges, of about a third of a million dollars yearly. The ICC upheld that contention and authorized them to abandone the line, but local groups protested so strongly that abandonment was delayed until Aug. 1, 1935.

Mr. Wales also answers an August request for information on the Pittsburgh & Western:

The P&W was formed as a consolidation of the Pittsburgh & Northwestern and several smaller roads. In 1891 the B&O took control and the road gradually became standard gage. In 1900 the P&W had 84 standard-gage locomotives and 11 narrow-gage ones. On page 127 of the July, 1952, Railroad Magazine is shown the wreck of a P&W train that hit a cow in 1906. On pages 114 and 116 of the Jan., 1935, issue are two old P&W photos.

Wanted by Martin J. Cohn, 370 First Ave., Apt. 13B, New York City, information on the old Atlantic Shore Line RR., also any size pix, maps, diagrams of same. Martin sent us the first news of pay-car pictured on page 28.)

Horseshoe Curve pix in our October issue aroused the interest of James Kightlinger, R.D. 1, Cooperstown, Pa. Where can he buy 2x2-inch slides showing that curve, with or without trains?

"Which railroads, aside from the Southern Pacific and Union Pacific, display the train's number on the locomotime?" asks Carter R. Bishop, Jr., 424 Iris St., Redwood City, Calif.

NKP No. 779, the last of a long line of steam locomotives built by Lima.
Nickel Plate Road

May 15, 1960: Canadian Pacific 2857, Royal Hudson, on Hamilton-Toronto-Galt fantrip of National Railway Historical Society.
Allen Jorgensen, 3818 New York Ave., Seaford, N. Y.

Who can tell Jeff Root, 937 Liberty Ave., El Cerrito, Calif., which American roads bought 2-10-2's that had been built for Russia but never went to that country?

"Where can I get information and pix on a Lackawanna train wreck of June 16, 1925?" asks John W. Cook, 692 Columbia Ave., Phillipsburg, N. J. "I was only five then but Grandpa took me to the scene of the wreck."

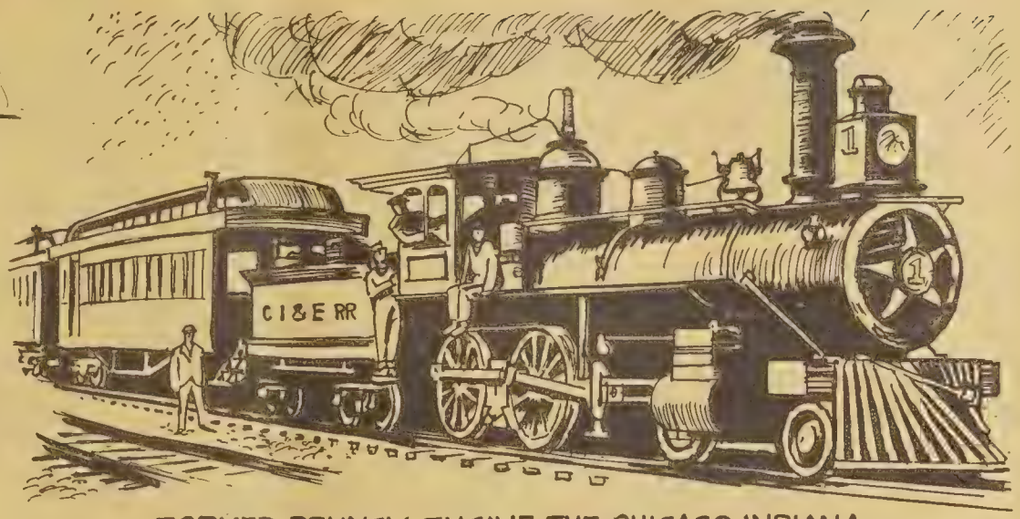
Chandler B. Cobb has a railroad museum that fills two rooms in his home at 168 Whipple Rd., Kittery, Maine. Among his exhibits is a pressure gage bearing the words: *Cooke Locomotive and Machine Co., Patterson, N. J. Locomotive* 21415. *Reg. April* 12, 1898. Can any reader identify that engine for him?

Robt. Fremming of Dallas, Wis., sells railroad postcards, over 200 different, 24 for $1, mostly steam power, some diesel and electric. Also 22 steam-power views, photo-gloss type, 10c each. (The samples he sent us are high quality.)

Along the Iron Pike

by Joe Easley

THE TOP HAT HAS BEEN A "MUST" FOR STATIONMASTERS AT EUSTON STATION, LONDON, ENGLAND, EVER SINCE 1838.



FORMER PENNSY ENGINE, THE CHICAGO, INDIANA & EASTERN NO. 1, WAS BADLY DAMAGED IN JOHNSTOWN, PA., FLOOD OF 1889. (from John B. Nate, Cincinnati, O.)

COACHES FOR THE NEW SAUDI ARABIA RAILROAD, STANDING ON RAILS, ARE HAULED SLOWLY ACROSS THE DESERT BY A TRUCK-AND-TRAILER MOTORCADE EQUIPPED WITH SPECIAL TIRES TO KEEP IT FROM BOGGING DOWN IN THE SAND.

SCENE AT YUBA CITY, CALIF. ON THE OLD SACRAMENTO NORTHERN. PRIOR TO 1941 THE SN, WITH 261 MILES OF HIGH-SPEED LINES, WAS AMERICA'S LONGEST INTERURBAN ELECTRIC RAILWAY. ITS EQUIPMENT INCLUDED THREE OBSERVATION PARLOR CARS. (from Erle C. Hanson, Richmond, Calif.)

OLDTIMERS RECALL PEDDLER WHO SOLD THINGS TO CHESAPEAKE & OHIO MEN WORKING IN 17TH STREET SHOPS, RICHMOND, VA., ABOUT 35 YEARS AGO. (from Chessie News)

This mighty 2-10-4, Class E-2, had just been shopped last May at Proctor, Minn., when Burdell Bulgrin photographed her.

Mike Runey, 5 Mountainview Drive, Pine City, N. Y.

Years ago DM&IR had passenger traffic. Here is train No. 1, pulled by No. 402, Class P, a Baldwin Pacific built in 1913.

Steam Days on the Duluth, Missabe & Iron Range

May 3, 1960: No. 231, a 2-8-8-4 type on the road U.S. Steel owns, arrives at the Proctor yard with 180 cars of iron ore.
Burdell Bulgrin (his father was a DM&IR engineer)

Mike Runey, Pine City, N. Y.
Old photograph of No. 602 in the open-pit mine, pictured on our front cover, that reminds you of the Grand Canyon.

MAIL CAR

(Continued from page 10)

MISS GWENDA BARNETT is probably the only girl in the world regularly employed by a railroad system to color photographs. Gwenda works for the Victorian Railways. Besides tinting transparencies for publicity displays and oil-coloring prints, she retouches black and white photos.

Gwenda Barnett

Her father, too, has a unique job. Stan Barnett is films officer for the Victorian Railways. He is a film projectionist and installs window displays and special exhibitions. They live at 52 Orvieto St., North Coburg, N. 14, Victoria, Australia. ●

THE FLICKERING kerosene switchlight, long a familiar sight on railroads, is giving way to progress. An electric substitute, said to be more reliable, less expensive to maintain, and shedding 400 percent more light, was described at a recent meeting of the American Institute of Electrical Engineers.

The new lamp can be operated by alternating current or on batteries. ●

A BIG LINK in the chain of national defense is Picatinny Arsenal's 40-mile railway at Dover, N. J., which uses three radio-equipped diesel locomotives. The Wharton & Northern, a Jersey Central subsidiary, enters the arsenal daily to pick up and deliver cars. Vital raw materials are constantly coming in; finished products for America's growing military strength are being shipped out.

The nature of the material shipped creates special problems. For example, open gondola cars can't be used for certain explosives, yet closed boxcars are harder to load. But the road has functioned smoothly for over ten years without an accident. Included is a maintenance shop for repairing 10 flatcars, 2 hoppers, 2 side dumpers, 78 boxcars, and other rolling stock. ●

SEVERAL readers in train and engine service made only one trip before being hired. This we learned in answer to a recent query. Listen first to William J. Parry, retired Canadian National engineer and author, who died of heart disease a few days after he wrote this letter. He will be greatly missed.

"When I started railroading in 1909 on the old Grand Trunk at Windsor, Ont.," Bill recalled, "it was standard practice for a student fireman to make three complete round trips with a regular fireman, without pay, before a hogger would OK him for paid employment, and you did it on muzzle-loaders with leaky flues, clinkered fires, and real estate for coal.

"I made my student trip with Engr. George Richardson and Fireman William 'Scotty' Young on a Richmond compound Mogul, No. 293. Those compounds were not noted for speed but were supposed to be easy on coal and water. They had long, narrow fireboxes, which did not lessen the ashcat's task. You couldn't crowd nor Wabash the firebed and then come up for air.

"Although I'd done no previous firing, I was familiar with locomotive fireboxes, having built and dumped fires and raked out ashpans for the Canadian Pacific at 13 cents an hour. But it wasn't low wages that had separated me from the CPR. One sub-zero night I had inadvertently run an engine into the turntable pit, and for that I was canned. So I applied for the privilege of shoveling coke on the old GT. If I made the grade I'd get 15 cents an hour, junior fireman's pay (yard service) and at the end of six months, 18 cents, senior fireman's pay.

"Well, the 293 pulled out of Windsor Yards with a tonnage train bound for London, and I went to work. The engine crew knew from the way I handled the scoop that I was no novice, so they let me go to it. When the firebox door swung open with a chain I lost no time shoveling in the precise amount of real estate and shutting the door pronto, to avoid the heat of the fire on the legs. Later on, when my name adorned the firemen's roster, I wore a stiff canvas apron around my legs to keep my overalls from being scorched.

"We staggered into London sixteen hours later, with me practically out on my feet but still bailing coal. The long trip had been uneventful except for the loss of one steer when making a flying switch of a stock car at Glencoe. The hogger had worked up a little too much speed, and when the head shack found that the hand-brake was not working he unloaded. The stock car hit the train with a crash, forcing its door open. A steer tumbled out on the tracks, picked himself up with an angry bellow and went thataway.

"I was left in charge of the engine while a posse, consisting of train and engine crews and the drover, went thisaway after the steer. Later they returned without the steer, so the dispatcher said to come in anyhow, which we did.

"On our return trip the next day we pulled a hotshot job. After the first five miles, upgrade, the regular fireman decided that he was excess baggage and he took off over the boxcar tops, without Mr. Richardson's knowledge, to get some shut-eye in the caboose. At the first water stop, Longwood, the hogger discovered Scotty was missing and he asked, 'How come?'

" 'Keep your blood pressure down,' I said. 'You won't run out of fog.' That put me on the spot, but I delivered the goods, and Mr. Richardson was so satisfied that he OK'd my student papers upon arrival at Windsor. Thus I got by with only one trip."

Another one-student-tripper is Howard E. Mapps, 1019 7th St., Greeley, Colo. "In the fall of 1912," he writes, "I took the fireman's exam on the Chicago, Milwaukee & St. Paul at Milwaukee, Wis., and was assigned to the Third Division out of Chicago, which extended between Marion and Perry, Iowa. I left Marion, firing a freight, and was OK'd by the engineer upon our arrival at Perry."

Still another is John F. Marzak, Rte. 1, Box 270, Warrenville, Ill. Says he: "I made only one student trip before being paid by the Burlington and only one before being paid by the C&NW. Apparently the practice is pretty general today—for experienced men." ●

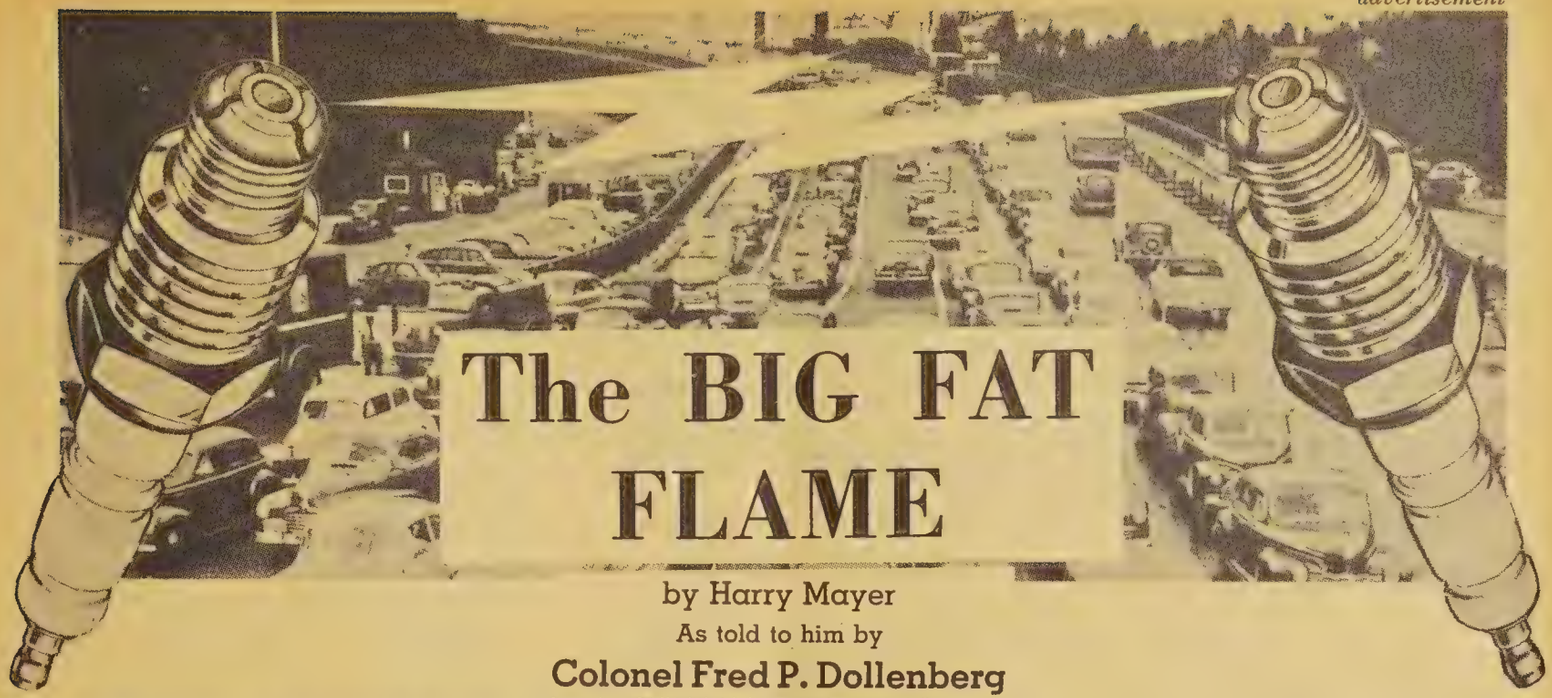
50 YEARS AGO Jack Haggerty, Box 51, Boston, Mass., was pounding brass in the old Canadian Northern's relay office in Winnipeg Union Station.

"There were 6 or 7 of us," he recalls, "including a light-haired office boy known as Cotton Top. He was a bright kid. One afternoon a telegram came in code from the West, signed by a station agent we all knew, his signature being the only words not in code. Work stopped while we huddled in an effort to figure what it was about. Somebody remarked, 'We need a code book to decipher it.'

"Shortly afterward Cotton Top said: 'Gentlemen, here is a code book.' We asked the kid where it came from and he replied, 'I know the General Manager's office boy and got it from him'."

An important event each afternoon that summer was the arrival of a local train at 3:30. Among the passengers it unloaded were about 30 young ladies, all dressed in diaphanous white, for the weather was plenty hot in Manitoba. Cotton Top would announce with a grin, "The Girl Special has arrived!"

"Thereupon," says Jack, "we'd throw open every key and pile onto a little balcony to watch the cuties pass out the front door with the bright sunshine filtering clean through their thin summer dresses. For an exciting moment we'd watch the parade happily. Then we'd go back to the old treadmill." ●



The BIG FAT FLAME

by Harry Mayer

As told to him by

Colonel Fred P. Dollenberg

We were stuck in the busy mid-Manhattan street. Behind us the traffic piled bumper to bumper, horns screeching indignantly. The colonel leaned over to our cab driver. "What's wrong?" he asked.

The cabbie pointed with his cigarette to the car in front, "Look."

We did. The car ahead of us — a shiny 1960 model — had stalled and the starter clattered endlessly with that empty metallic sound that you know in advance is not going to make the motor catch. Twisting the ignition key in helpless fury, the unfortunate motorist at the same time was exchanging uncomplimentary opinions with the drivers of the vehicles snarled behind him. At length he piled out of the car, wrenched at the hood, and looked fiercely at the inert engine. To no one in particular, but as though to vindicate himself to his tormenters, he shouted: "I just know it's those damned spark plugs. Only two thousand miles and already they're shot!"

Startled, I turned to my companion. "Colonel," I demanded, "is this a plant?" He stared back at me, then he got it and he began to laugh. So did I, in a moment, and there we were in this taxicab, stalled between skyscrapers and going no place, roaring as though we'd never stop.

Spark plugs! That was the joke. The Colonel and I were on our way to his downtown office where I was scheduled to interview him for a magazine story. The subject — spark plugs.

You see, Col. Fred Dollenberg is the inventor and manufacturer of a device which is designed to allow automobiles to run **without** spark plugs!

Later, sitting in his top floor office, with the drapes parted to reveal the exciting lower Manhattan skyline, I got a more leisurely look at the Colonel. I wondered and asked about his smashed nose, — the war maybe? — and he smiled and said no, just an opposing tackle with a very hard head. Dollenberg was a star fullback at St Joseph's in Philadelphia before he joined the Army Air Force as a pilot immediately after he got his degree as an engineer. After war was declared against Japan and Germany, he saw enough action to later receive the Inquirer Hero Award as Philadelphia's most decorated flyer, succeeding a similar award to Marine hero Al (Pride of the Marines) Schmid. He was one of the first to personally pilot Gen. Douglas MacArthur. Evidently there was considerable brilliance to this young fighter; he started the climb up to the brain brass, and some of the military manuals he was charged with preparing are still used by the Air Force. (Only part of this did I drag out of Dollenberg. Indeed it was only through reading a newspaper file that I learned of the Colonel's outstanding combat record!)

It was while Dollenberg was in command of a task force of seasoned P-40 pilots that a grim incident took place which set the then Capt. Dollenberg off on his restless search for perfection. A young ace, coming in safe and sound from a mission where he had gone through murderous enemy fire, never made it to his safe hut a few hundred yards away. He nosed a bit too low — no engine power to get the plane up quickly — and the trees that lay just short of the runway caught the plane and pilot and crashed both. Dollenberg was horrified at the accident and at the paralysis of fatalism that seemed to settle on the shoulders of officers and enlisted men alike in the face of a tragedy so senseless. . . . After all, it seemed to say, it is true, isn't it, that more planes are lost through engine failure and other non-combat accidents than are brought down by the Japs? You had to expect such things —and accept them. . . . But Dollenberg couldn't accept it. Not when the cause of this type of accident could be ripped out of the engine.

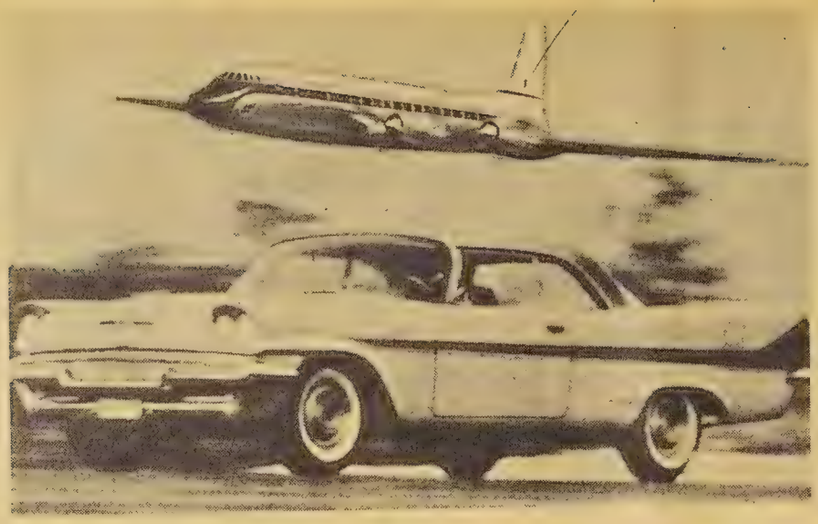
"Plug failure?", I asked. He nodded, shortly. "This tragedy and others, too. Too many others. Did you know that spark plugs were invented more than 40 years ago for engines whose limit was 20 miles an hour? These very same spark plugs? And that in principle they haven't been changed an iota since? Can you imagine a 2000 horsepower motor depending for ignition on a skinny little spark that had been intended to help Grandpa toot around the square on a Sunday afternoon? Well, that's what these boys had under their P-40 hoods." The accident had started him off on his search, I supposed, and again he nodded. It hadn't been an easy journey. Apathy, defeatism—a young enthusiasm will always encounter these. I've done many success interviews, and it's a rare success that has been a joyride. Dollenberg spent long hours off duty working on the problem of the antiquated spark plug, but when the war ended he still hadn't cracked it. Returning to a young wife and family the Colonel organized a non-scheduled commercial airline and operated it for 3 million miles, even introducing gliders for the first time in commercial aviation.

If it hadn't been for some weight-throwing on the part of one of the larger airlines which had

(continued on next page)

"The spark plug was invented more than 40 years ago. For the last 20 years it has not been doing an adequate job. The U. S. Navy and Air Force knew this only too well. The Naval Bureau of Aeronautics cooperated with me by undertaking extensive, expensive testing to replace obsolete spark plugs with this new efficient type of fuel ignition. We were successful with the LS-702—the aircraft predecessor of the present Lectra Fuel Igniter for automobiles. Today this extraordinary invention is replacing spark plugs in tens of thousands of automobiles throughout the country. By 1961 every car made will carry fuel igniters not spark plugs" . . . Col. Fred P. Dollenberg, USAF Res. from a speech at the Conrad Hilton Hotel, Chicago, January 8, 1958.

advertisement



begun to smart under the irritating competition it was getting from the Dollenberg outfit, the young man would undoubtedly have succeeded in commercial aviation and this particular story wouldn't have been written. But as it was, Dollenberg was forced out of business on the sort of technicality that somehow seems always to crop out against the small business, not the big. He had to sell.

Well, there he was — with a little money left from the debacle, a family, and a living to make for them. He turned his attention once more to the anachronism of modern engines — the spark plug. Starting again from scratch,he reviewed the problem.

"It's really quite simple," said Col. Dollenberg. "An engine provides power for a vehicle because gasoline, sprayed into the cylinder, is ignited by a spark. When ignited the gasoline burns pushing the piston down into the cylinder. The more complete the burning of the gas the more force in the cylinder. The more force, the more power. Obviously, therefore, the larger the spark the more gas ignited and burned. What we were after was a much larger spark, **a big, fat flame!"**

"And the conventional spark plug can't provide it?"

"No, it cannot. Every mechanic knows that."

"And the kid in the plane?"

"The P-40? What killed him was insufficient fire — a spark too skinny to ignite sufficient gas to give the engine instant power to climb up and over those trees."

"Why can't the spark plug give a fat spark?" I persisted.

The colonel spoke simply. "Because of its basic design. Every spark plug has an **air gap** — .025 to .035 of an inch — and the spark is no larger than the gap. No larger did I say? Only when the plugs are brand new is the spark even as large! Carbon forming immediately as the plug is put into use begins fouling, then ruining, the tip. The thin wire electrodes begin to wear away. The danger — and enormous expense — of this obsolete mechanism lies in these factors."

The answer to the spark plug was an igniter which had no airgap — which contained no wire electrodes — whose tip would not foul — which would not blow out even at the highest compressions . . . **which would never need a replacement for the life of the engine.**

Colonel Dollenberg went to Washington.

The Navy didn't accept him with open arms. The principle — fine! Let's see it work. And Dollenberg made it work. After the most exhaustive tests, he knew he was in. . . . Out went the spark plugs. His LS-702 Prototype was approved for U. S. Navy high-compression engine use.

If that had been it, it still would have made a good story — the revolutionary change that a former fighter pilot had effected in military aircraft. But that wasn't all. Dollenberg turned to the field of automobiles.

For more than 40 years the old fashioned spark plug had been the standard gas igniter for every car made. During that time engine power had soared from less than 20 horse to more than 300. Every year the puny spark plug with its skinny little flame became less able to do its job. The new high compression engines were now burning out spark plugs in a few thousand miles of driving. In 1960 Americans paid more than 500 million dollars merely to replace wornout spark plugs. To provide what spark plugs could not do, the big oil companies began to produce super and then super-super gas — at super prices! Not only were car owners spending a huge sum for plugs each year — they were also spending a fortune in premium gas for the privilege of keeping spark plugs in their engines. And even at that they were not getting their money's worth, as the new cars they bought very soon became sluggish ones.

If ever there was a call for a modern, efficient ignition mechanism to go with the modern automobile, this was it. Dollenberg heard the call. He marketed the LECTRA FUEL IGNITER!

There were problems. Little ones like designing the Aircraft igniter to the same size and shape as the conventional automobile spark plug it was to replace. And big ones such as getting a small voice heard in the towering wilderness of the Detroit automobile kingdom. Dollenberg was helped by the shrewdness of fleet operators whose business depended upon efficiency and economy. Taxicabs running triple-shift around the clock installed the Fuel Igniter and reported a 10-20% increased gas mileage per car! Truck owners followed suit—and then the motorist. In less than 12 months, sales of the Lectra Fuel Igniter zoomed into the million dollar stratosphere!

I asked Dollenberg about the Lectra advertising claim that had jolted motorists all over the country. "Colonel, you've made the guarantee that LECTRA FUEL IGNITER will save a car owner $100 a year or that you will take back the igniters and refund their money. How do you arrive at that one hundred dollars figure?"

"It's based on the average of 10,000 miles of driving in one year. First there will be a saving of from $10 to $12 a year in eliminating spark-plug cleaning, gapping, and adjusting at 5,000 miles, replacement at 10,000 miles."

"Does that mean that the Fuel Igniter will need no cleaning or replacing for a whole year?"

"It means that the Fuel Igniter will **never** have to be cleaned or replaced! I mean that we guarantee that **it will outlast the life of any car!** Not only that: we are also guaranteeing that the Fuel Igniter will squeeze up to **6—maybe 8—more miles out of every gallon of gas purchased** the first year and every year—or we will replace them free until they do. That's a saving of $40 per year. And it will do this using **regular gas**—economy gas—not the super gas bought at such walloping prices. That means a saving of $50 each year. And the Igniters will do this every year of the car's life — they improve with age. **They never wear out!"**

As Dollenberg talked I drew up a chart. You can see it at the bottom of this page.

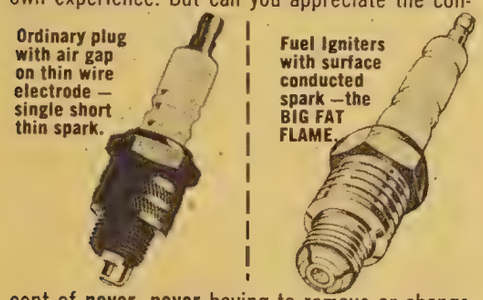
I said to Dollenberg, "Colonel, to a person like myself—a guy who drives a car well but knows next to nothing about its mechanism—who's always felt the car runs better after it's had a wash—how will I know right away I've really got something after I've switched from spark plugs to Fuel Igniters?"

The Colonel twinkled at me in sympathy. "I've always felt it a pity they don't teach mechanics to all school children. I think I know just how you feel. Anyway — very seriously — please listen to this: The first time you press the starter after you've installed the Igniters (very simple — by the way), you'll hear and feel an instant clean throb and an immediate even roar of the engine. I tell you, you'll be astonished. Even on the coldest morning you'll get a thrill, listening to your engine kicking over instantly and then settling quickly into a smooth purr. As for stalling in traffic, like that fellow did this afternoon, that won't happen to you. Stalling is almost always traceable to a faulty spark—and the Igniter will not fault. Climbing and passing? Even a big 325 horsepower car can and does falter on a hill or when it tries to pass if suddenly the spark plugs aren't burning sufficient gas. That won't happen to you. Instead you'll climb and pass more

HOW MOTORISTS ARE SAVING $100 A YEAR

	SPARK PLUGS	LECTRA FUEL IGNITERS	SAVINGS
Cleaning, Gapping, Replacing	several times a year	never	$10 per year
Gas Consumption	600 gallons	465 gallons	$40 per year
Additional cost of premium gas	$50 a year	not a cent	$50 per year
		TOTAL SAVINGS =	$100 per year

swiftly than you've ever known because you'll be burning gas, not wasting it. You've heard about the simple exhaust test? Try it. First, with the spark plugs in place, let the engine idle and stuff a ball of white absorbent cotton into the mouth of the exhaust. It will come out soaking with **unused** gasoline. Then try it with Igniters replacing the plugs. The cotton ball will be almost dry. The gas **burned** instead of escaping through the exhaust. Or here's something else. Again with spark plugs in the car, go into gear — or in drive if you have an automatic transmission. Don't touch the accelerator. Now note how much the car moves forward—if at all. Then unscrew the plugs and replace the Igniters. If you stood still with spark plugs you'll move forward from 4 to 6 miles an hour with the Igniters while not touching the gas pedal! The gas that was required with spark plugs in your car merely to idle your motor without being able to move it forward, carries you forward up to six miles an hour with Igniters in the engine! One more final thing—with spark plugs a car must be looked over and adjusted several times a year. You know that from your own experience. But can you appreciate the con-


Ordinary plug with air gap on thin wire electrode — single short thin spark.
Fuel Igniters with surface conducted spark —the BIG FAT FLAME.

cept of **never, never** having to remove or change spark plugs because you don't carry any? The concept of Fuel Igniters becoming **permanent** installations in your engine — for the life of your engine?

"Yet, with all this — believe it or not — I still haven't fully answered your question . . . How you'll use more air and less gas . . . the savings on your battery . . . increased RPM . . . how carbon — the enemy of spark plugs — actually increases the efficiency of Fuel Igniters. But what I've tried to say is that the spark plug is as inferior to the Fuel Igniter as the wagon is to the modern automobile. And just as out-dated. Auto mechanics know this now. The ordinary motorist is learning about it fast."

"One last question: What about Detroit, Col. Dollenberg? Do you feel you're fighting a crusade?"

Dollenberg looked out of the window, out into the dusk of the city. There was a reflective quietness about him as he thought of his reply. Then he said: "No, we don't believe we're fighting the big spark plug manufacturers. Oh, there's bound to be a competitive fight soon because it's a matter of only a short time before these giants will all scrap their investments in the obsolete spark plug and turn to the manufacture of fuel igniters. Meanwhile — to put it quite candidly — there **is**, of course, that huge investment in stocks of spark plugs to liquidate and while the big fellows are attempting to unload, LECTRA will be booming along." The grin came out again as he said: "I hope they take their time about it. At the rate we're going we'll be big enough to take care of ourselves shortly."

I got up to go, convinced that Dollenberg's quiet confidence was well-founded. The product and the man were right for each other. Here's an incident which impressed me. A short time ago, LECTRA ran a mail order advertisement in the sober New York Times. One of the replies they got was from a gentleman in Pennsylvania who put it to LECTRA right on the line. Said the Pennsylvania man:

"I've read your ad in the New York Times. What I want you to do before I order a set is for you to send me a copy of that ad through the United States mails. Then if your Fuel Igniters won't come through with all those fancy promises — and if you don't send my money back if they don't perform as you say — I'll have Uncle Sam on my side while I go after you." The hard-bitten Pennman was sent the ad through the mails, all right. And he ordered a set of Fuel Igniters. LECTRA wasn't fearful that Uncle Sam would be after them. Because — and here was the kicker — **Uncle is a LECTRA customer!** Many military installations have field-tested the Fuel Igniter. As a result of these field tests, many thousand Fuel Igniters have been purchased by these government units.

So that's the story of The Big Fat Flame. I'm leaving a little space for a message from Col. Dollenberg. Meanwhile I'm on my way outside to the garage with my set of Fuel Igniters. I can't wait to get rid of those spark plugs!

This article has been presented both as an advertisement for the Lectra Fuel Igniter and as a public service. Especially do I wish to emphasize the words **public service.** It is flattering to be imitated, it is said, but since the invention of the Lectra Fuel Igniter, there have appeared so-called "imitations" which have failed to perform as promised.

We state, flatly and sincerely, that we **can** back every claim that appears in Mr. Mayer's story. Please look very carefully at the table which follows: The fuel consumption figures in this chart are compiled from extensive field tests by industrial and private users.

RECORD OF PERFORMANCE — LECTRA FUEL IGNITERS

NOTE—All Lectra-equipped cars in these tests used REGULAR GAS

(compiled from survey reports and field tests)

YEAR	Make of Car	Spark Plug Miles Per Gallon	Lectra Fuel Igniters Miles Per Gallon	Miles Increase	(Gain) Extra Miles Per Gallon
1956	Chevrolet V8	17.7	22.2	24%	4.5
1959	Oldsmobile	17.1	20.3	18.7%	3.2
1955	Nash Rambler	20.0	27.6	38%	7.6
1954	Plymouth 6	22.2	26.0	17%	3.8
1955	Ford Fairlane	14.0	21.2	50%	7.2
1957	Chrysler Windsor	16.5	21.0	20%	3.5
1954	Oldsmobile 98	15.5	18.0	14%	2.5
1958	Pontiac	15.6	19.1	22.4%	3.5
1957	Dodge D-500	16.0	21.5	35%	5.5
1951	Buick Super	13.0	17.0	22%	4.0
1958	Chevrolet	16.9	23.8	40.8%	6.9
1956	Plymouth V-8	16.0	20.0	25%	4.0
1955	Oldsmobile 98 (air-conditioned)	15.0	20.9	40%	6.0

All above figures confirmed by letters and reports available from our files in New York City.

Nothing is as exacting—as compromising—as cold statistics. In the final analysis, nothing will prove to you the extraordinary benefits of the Lectra Fuel Igniter as its performance in your own automobile.

Therefore we guarantee (and stake our reputation and our business on this guarantee): **That Lectra Fuel Igniters must be everything we say they are, everything we have led you to expect. They must make your car perform as you never thought it would and on regular gas. You must IN YOUR OWN JUDGMENT get easier starting, faster pick-up, improved economy (to conform to the table above) or you can return them within 10 days and get back every cent you paid—without question and without delay. What's more — they must continue to function properly for the life of your car or they will be replaced until they do.**

We've taken a lot of your time in presenting our story. Now there's nothing else to say; the rest is up to our Fuel Igniter. If you want to try them (bear in mind our guarantee) they will be rushed to you as soon as we receive your order. For your convenience we are adding a coupon to the bottom of this page. If you'll fill it out and mail it I can promise you the most exciting automobile experience you've ever known.

Sincerely,

Lea P. Dollenberg

Lectra Fuel Igniter Co.

Lectra Fuel Igniter Co., Dept. GM-27
11 East 47 Street, New York 17, N. Y.

Rush my Lectra Fuel Igniters by return mail on your money-back guarantee.

☐ I enclose $12.60 for 6 Igniters

☐ I enclose $16.80 for 8 Igniters

☐ I enclose $.....for.....Igniters at $2.10 each

☐ Send.....Igniters C.O.D. I enclose $1 deposit and will pay postman balance on delivery plus shipping charges.

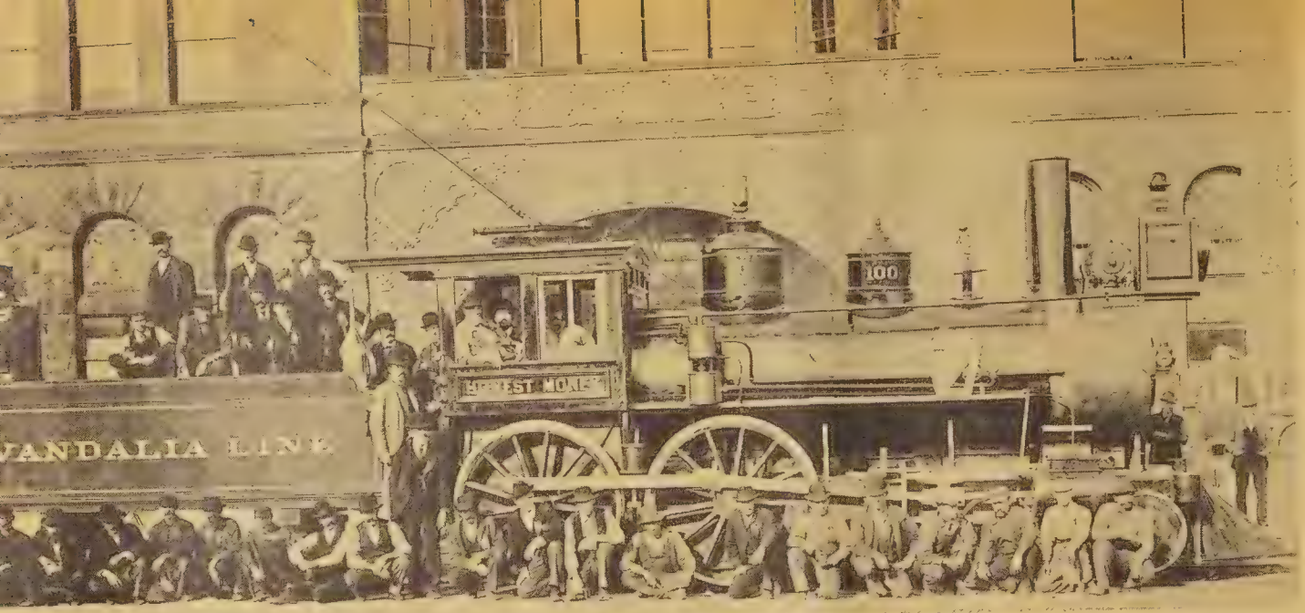
My car is.....year.....make.....model

.....no. of cylinders

Name .....

Address .....

City .....Zone.....State.....



This 4-4-0 has a trolley pole; now we've seen everything. (Explanation on page 42.)

Collection of "Carload Andy" Ospring, 1322 N. Ontario St., Burbank, Calif.

Steve Maguire's TRANSIT TOPICS

DISTURBING reports began coming in from Cuba even before we published *The Railway That Chocolate Bars Built* in our October issue. When we visited the island republic some time ago to ride the Hershey line and gather material for that article, everyone we met gave us courtesy and cooperation. But with anti-American feeling growing under the Castro regime, the situation has changed.

Steve Maguire

A fan who prefers to be anonymous was taking pictures of trolley operation at the Havana Union Station. A policeman stopped him and warned that no photography was permitted there. In that same area your author took views freely, lugging along two cameras without interference.

Another fan, Andy Maginnis of Philadelphia, Pa., was enjoying a Florida vacation when a friend invited him on a flight to Cuba by private plane. Eager to make snapshops of the Hershey Railway, he accepted. But at the Havana airport, immigration officers forbade him to take a camera into Cuba. Andy was disappointed. Leaving his camera on the plane, he rode the Hershey line without taking pictures.

THE LONG-AWAITED and much-ballyhooed rapid-transit plan of the Los Angeles Metropolitan Transit Authority was made public last summer. Since then things settled down in the kind of quietitude to which many previous schemes had been condemned.

LAMTA consultants recommended providing 75 miles of high-speed transit lines for the same area that prior schemes had designated vital transit corridors. These include Long Beach, Covina, and Santa Monica via Wilshire Blvd., with a branch north to Hollywood and Van Nuys.

Equipment would be lightweight cars riding on rubber tires along double concrete paths, propelled by electricity. With speed up to 80 miles an hour, trains of up to eight cars could run at an average of 35 to 40 mph on the system almost entirely elevated, with surface running largely along the Long Beach line right-of-way, and very short underground operation.

Though the plan's exponents emphasize that this would not be an elevated system, what else could you call a structure mounted 16 feet over the ground and supported by 3 x 4-foot columns down the right-of-way below, spaced 100 feet apart? The overhead roadway of concrete would be 21 feet across both "tracks." At stations this width would increase to 40 feet to permit loading platform between them.

It would not be the same as New York or Chicago els, but we fear that the system would have the same degenerating effect on the area below and beside the elevated portions of the line—a degeneration which occurred in cities with el lines in the past.

The project's cost is estimated at $529,700,000. One big problem: Where would the money come from? Furthermore, if the lines are built, would the automobile-happy citizens of the Los Angeles area be willing to use rapid transit and leave their autos at home?

Another deterrent, which applies to all novel rapid-transit plans, including monorail, is the fact that, once purchased, the facilities could be used only in one location. Financing by equipment trusts could not be done because, in case of a financial breakdown, the repossessed equipment could not be operated elsewhere.

As Herman S. D. Botzow, Jr., points out in his interesting new book, *Monorails*, it is almost impossible to finance a large venture in any unique field unless public funds subsidize it.

MONORAIL transportation is being tried out in France at Chateauneuf-sur-

Stephen D. Maguire, 1411 River Rd., Belmar, N. J.

No. 619, the first of the 270 new Budd-Westinghouse, stainless-steel, rapid-transit cars that are being built for the Philadelphia subway-elevated lines.

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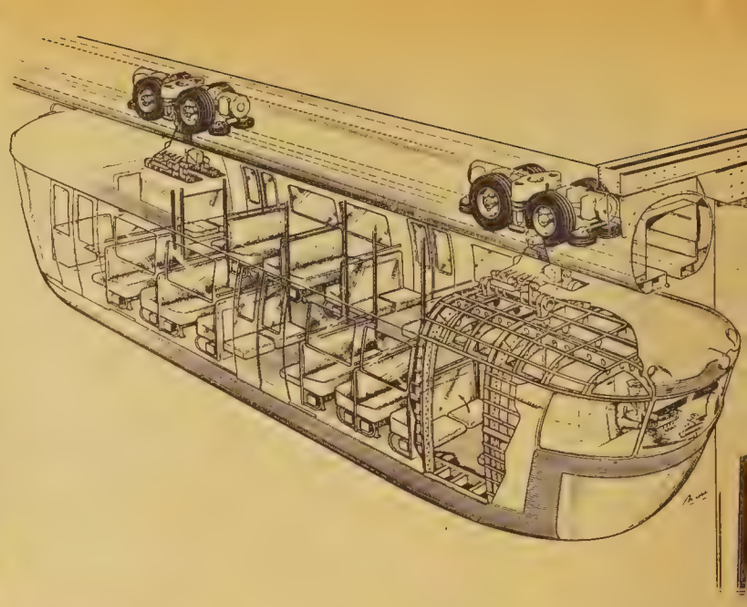

Experimental French monorail car, which holds 129 passengers, can make 60 mph.
France Actuelle, 221 Southern Bldg., Washington 5, D. C.

Loire, near Orleans. A group of 18 big French corporations has built an experimental line which includes a 57-foot car seating 32 passengers, plus 97 standees, capable of speeds up to 60 mph.

The track is a hollow, welded, steel beam. Inside of it ride two motor trucks, each containing four rubber-tired wheels somewhat like those used on one of the Paris subway lines. The car is suspended below the trucks. Transversal stability is obtained by an automatic mechanism in the car.

For a complete story of monorail lines we recommend Botznow's 104-page book *Monorails* (Simmons-Boardman Publishing Co., 30 Church St., New York City, $3.95).

EXTENSION of the Cleveland Transit System to the city's airport at cost of about $4 million has been vetoed by CTS bondholders, even though the Transit Board wants to make Cleveland the first city with a rail-transit connection directly from airport to downtown.

Lew Gedge of Shaker Heights, O., tells us that CTS had hoped to purchase the eight Illinois Terminal Railroad deluxe interurban cars, bought in 1948 at cost of $1½ million, for the line. The CTS would buy them for only $160,000, which is a terriffic bargain, considering they were in service only a few years and are tops in electric railway equipment. But Gilman Smith, representing the bondholders, contended that the operation of used cars would downgrade the CTS.

The thought of a three-car, air-conditioned, luxury train, complete with club car, leaving every 20 minutes from the airport for downtown, is much more than any transit line could hope for, especially at a price of one-tenth of the original cost for cars practically new. The bondholders' rejection is hard to understand.

ST. LOUIS CAR CO., which produced a great many traction and rapid-transit cars in years past, has been sold for $8,300,000 to General Steel Castings Corp. The latter will continue to operate the car plant as at present.

PHOTO at top of page 40 does not show a locomotive but a display piece built by donated labor of shop employes of the old Terre Haute & Indianapolis and St. Louis, Vandalia & Terre Haute in 1896 for a Presidential campaign. Part of it is wood, the rest is scrap material. Equipped with a trolley pole and mechanism, it ran on streetcar tracks. Photo was taken beside old Terre Haute railroad depot, demolished long ago.

SPERRY rail-car 402 (pictured in Aug. issue) was one of nine Mack railbuses built in 1954 for the New Haven Railroad, writes Paul W. Overholt, P.O. Box 504, West Hyattsville, Md. Only one of the nine, No. 12, ever saw service on the New Haven. The rest were stored as soon as delivered.

Paul quotes from *History of Mack Rail Motor Cars and Locomotives*, published in 1959 by NRHS, Lehigh Valley Chapter, which, in addition to much data on rail motor equipment, gives the complete story of the two NH cars purchased by Sperry in 1958, namely cars 19 and 18, never used, No. 19 became 402, and 18 became 403. Sperry shipped 402 to Cologne, Germany, where ultrasonic detection instruments were installed and the body structure. Later on, Sperry itself converted car 403 similarly at its Danbury, Conn., plant.

No. 402, which is equipped to conduct four yearly tests of the New York subway system, carries NYCTA colors.

Catalytic mufflers insure safe and fumeless operation of the diesel engine on the subterranean roadway. No. 403, now ready for operation, is painted Sperry traditional yellow. It will be added to the rail tester cars serving rail lines all over the United States.

Readers interested in the Mack book (68 pages) can get it from Randolph L. Kulp, 602 St. John St., Allentown, Pa. for $1.50.

QUERY. Did any other traction line run entirely inside a park or cemetery such as the one in Fairmount Park, Philadelphia, and the graveyard trolley at Loudon Park, Baltimore, both abandoned years ago?

FUTURE of the two New Orleans Public Service trolley lines, the last such route still using non-PCC equipment entirely, is reported by Wilbur T. Golson, Baton Rouge, La., who sends us the following NOPS official statement:

Because the cost of operating a streetcar system with PCC cars would be considerably greater than that of the proposed bus system, should it be decided to retain such streetcar operations (which we would not recommend), we would expect to receive a fare on the streetcar line of sufficient amount to compensate for the difference in cost of the two systems. Our present streetcars are reaching the end of their useful lives and we virtually must manufacture all spare parts required for their maintenance. This, as you know, is a very costly procedure, and we would expect to have a somewhat similar parts problem with PCC cars in the not-too-far-distant future from the commencement of their operation.

Also, continued streetcar operation would require the complete renovation of our roadway system with continued high cost of maintenance. All of these features, coupled with the lack of flexibility and maneuverability of streetcars as compared to rubber-tired vehicles, mitigates against their continued use.

FIRST fleet of stainless-steel rapid-transit cars ever built is now operating on the Market-Frankford line of Philadelphia Transportation Co. Inauguration ceremonies last July 7 included a brass band. Altogether 270 such cars are being built by Budd Co. to replace older cars dating back to 1907 and 1911. When the delivery of the entire order is completed early next year, seven minutes will be cut from the 13-mile transit route, with scheduled top speed of 45 mph. (Photo on page 40.)

The use of stainless steel throughout the cars is expected to result in huge savings over a period of years, more than offsetting the slightly higher price of these cars as compared with conventional steel equipment. It cuts down power consumption. Since stainless steel never rusts nor needs painting, maintenance costs also are reduced.

Contributing to the saving in total weight is the single roof unit, on top of which are placed at intervals, ventilating units that provide an even temperature inside the cars.

Of the 270 cars, 46 are single units, the rest are permanently-coupled pairs. They are 55' 4" long 9' wide and 12'

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Phila. Sub. Trans. car 167 on Reading track at Norristown, Pa.

PST car 160 passing the Bridgeport, Pa., station.
All photos on this page by Stephen D. Maguire

9 7/16" in height and seat 54 to 56 passengers, with room for 120 standees.

Budd has built a total of more than 2600 stainless-steel railway cars since it constructed the first *Pioneer Zephyr* for the Burlington in 1935.

JUST 125 different transit systems were covered by Earl Clark, 825 Taft Road, Cincinnati 6, Ohio, on a recent trip overseas, which he considers a record. Last year Earl produced the first and only listing of world traction lines. His 1960 trip enabled him to check on abandonments for a new edition of his *Directory of World Electric Lines*. Copies of this 28-page publication are available at $2 each.

Recent tramway abandonments include the city systems at Palma, Algiers and Tunis. With Cairo city lines soon to quit, the entire continent of Africa may soon be without a city tramway. However, two interurban routes remain at Tunis, and the line between Cairo and Heliopolis also will continue service.

CAR DATA index cards, size 5x8 inches, with spaces for the various specifications, may be obtained from G. F. Cunningham, 435 Quade St., Washington 21, D.C., at $2.20 per 100, and 95 cents additional by the hundred.

THE FIRST actual trolley museum operation in the West began last January 3rd when Los Angeles streetcar 1423 was moved a very short distance under its own power at the Perris, Calif., site of the Orange Empire Traction Museum. Since then additional cars have run over a short piece of track. This news comes from Don Shelbourne's museum column in the *Perris Progress*, a weekly newspaper.

Three OET museum members have purchased the *Progress* and are publishing it entirely apart from their museum activities. They are Don Minnich (formerly with Branford Electric), Jim Walker, Jr., and Ernie Haase.

Not long ago when the museum was attempting to get a tram from the Hill of Howth line in Ireland, by donation, some Irish eyebrows were raised—raised over the name *Orange Empire* on the letterhead. Even so, the OET expects to get one of the Irish cars soon.

The Seashore Electric Ry. museum in Maine has received a Japanese trolley from the Nagasaki system. It was presented at a ceremony June 25th, marking the centennial of the first trade treaty between the U.S. and Japan. Part of the cost of shipping the car was paid by the Japanese Foreign Ministry.

THOSE interested in the plans and workings of the New York City Transit Authority bus and rail lines should read Roy E. Walters' column in each issue of the *Ridgewood* (New York City) *Times*, under title "Transit Is My Business." Roy is a bank teller. He writes a detailed and critical resume of transit in an effort to improve service.

Learning recently that the NYCTA was planning to sell old wooden subway instruction car 999 for scrap to a dealer for $900, the urged the Authority to donate it to the Branford museum. The car, of almost interurban appearance, was built in 1905 by Brooklyn Heights Ry. and never was operated out of Brooklyn. Last we knew, the city held to its price demand and a fan group was trying to dig up the money for purchase.

WE DIDN'T correct an erroneous item, according to Frederick Maloney, Brighton, Mass., who says Philadelphia Trans. Co. did *not* sell its 40 ex Kansas City PCC cars to Toronto, as a fan had reported to us some time ago. ●

Snowplow ready for winter use on PST, formerly the Philadelphia & Western.

PST Equipment

PROBABLY the most varied lot of traction equipment still running in North America is that of the Philadelphia Suburban Transporation Co., operating out of 69th Street Terminal, Upper Darby, Pa., at the Philadelphia city line and connecting with the Market Street subway.

Four lines radiating out to Norristown, Ardmore, Media, and Sharon Hill are served by 66 passenger cars of seven varieties ranging from city trolleys to suburban and interurban types.

There are also 16 pieces of work equipment.

A year ago this operation seemed to be doomed. The company pushed hard for permission to drop all of its rail routes except the Norristown line, and the State of Pennsylvania was eyeing the Norristown line for highway purposes. Since then, PST has lost its fight against rail service and apparently is resigned to continuing the operation. This is confirmed by their recent renovation of seven old center-door cars, which they repainted and blocked out the curved upper sash, thus giving them a slightly more modern look.

Three old cars Nos. 25-27 formerly used on the Philadelphia city lines, are being retained for use in heavy snowstorms. Both these three and the center-door cars, Nos. 62-75, have high 33-inch wheels that are not affected by snow as are the PCC's and other lightweights. When snow accumulates on the rails, the PCC's are withdrawn and the older cars go into service, thus keeping the lines open. The center-door cars also are used occasionally in rush hours.

The standard-gage Norristown line operates streamlined *bullet* cars in base service and adds remodeled older cars in peak traffic. Since this line is entirely on private right-of-way with fast, heavy equipment, snow seldom affects it. A PST story was in Nov. '55 *Railroad*.

Roster was compiled with help from Andy Maginnis of Philadelphia. All passenger cars were built by Brill, except Nos. 11-24 by St. Louis. Nos. 1-10 were the last cars Brill ever built. Nos. 25-27 were bought from Philadelphia Tr. Co. in 1942. They were originally Nos. 4024, 4045, and 4106.

Nos. 160-170 are ex-center-door cars 60-70. The present No. 207 was built in 1934 to replace first 207, lost in a fire.

Philadelphia Suburban Transportation Co.

Rail car roster compiled by Steve Maguire

BROAD GAGE DIVISION (5′ 2½″) PASSENGER CARS

Numbers	Built	Weight	Motors	HP	Length	Width	Height	Whls.	Trucks	Seats
1-10	1941	42,350	4 WH 1433	75	48-4	8-10	10-0	26"	99 ERI	58
11-24	1949	49,000	4 WH 1433	75	50-5	9-0	10-0	26"	St. L.	58
25-27	1917-'8	44,000	4 GE 203L	50	45-6	8-4	11-8	33"	27 MCB	50
62, 63, 66, 68, 73-75	1925-'6	59,280	4 GE 203L	50	47-10	8-7	12-5	33"	27 MCB	62
77-86	1931-'2	41,980	4 GE 301B	50	49-2	8-10	10-6	26"	89 EI	61

BROAD-GAGE DIVISION WORK CARS

Nos.	Type	Builder	Year	Trucks	Remarks
3	ST Sweeper	McG.-Cummings		MC ST	Awaiting scrapping
4	DT Sweeper	Brill		Bald. 84AA	
5	DT Sweeper	Brill		Brill 27E	
04	Flatcar trlr.	St. Louis	1907	Bald. MCB	Ex NYS Rys. 3016, Syracuse
07	Line car	Jewett	1909	Bald. MCB	Ex P&W 40 series cut down
61	Ex-passenger	Brill	1926	Brill 27 MCB	Ex freight motor Hauls 04, reg. work train

STANDARD-GAGE DIVISION (4′ 8½″) PASSENGER CARS

Nos.	Built	Weight	Motors	HP	Length	Width	Height	Whls.	Trucks	Seats
160-168, 170	1924-5	60,206	4 WH 537	65	50-6	9-0	11-10	30"	27 MCB	52
200-209	1931	52,290	4 GE 706B	100	55-2	9-2	10-6	28"	89 E2	52

Standard-gage work cars: No. 10, snowplow, Brill, 1907; No. 400, single-end dump car; No. 401, line and work car (ex frt. motor), St. Louis, 1907; No. 402, work car (ex East. Mich. Ry. 2010), Kuhlman, 1924; No. 406, weed-spraying trailer (ex Phila. Tr. Co. W 49); No. 407, flatcar trailer; No. 408, cement mixer on flat trailer; No. 421, derrick trailer; No. 422, ballast trailer; No. 446, work car, ex passenger (ex P&W 46), St. Louis, 1907.

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SWAMP ANGEL

A True Tale by "FROG" SMITH

E. A. ("Frog") Smith

LOVE, they tell me, is like a train wreck that happens when and where you least expect it. I was thinking along those lines one mild September morning in 1919 when I blew into the Otter Creek logging camp in the Gulf Hammock section of Florida's west coast and landed a firing job on the Otter Creek & Southern.

The camp was a dreary collection of unpainted wooden shanties and bunk cars. No saloon or dance hall. No other type of pleasure emporium. Not even a dainty undergarment, lacy or otherwise, billowing on a clothesline to hint at female companionship for a lonely young boomer.

Hell, I thought ruefully, *I ain't going to last here very long.*

Although the Otter Creek & Southern was chartered, it was strictly a logging pike. The only main-line cars it handled were Seaboard Air Line flats for hauling crossties. Operated by the big Otter Creek Lumber Company, it wound in and out of swamps and cypress ponds, gray and gloomy, with patches of sunlight here and there and Spanish moss dripping like bats' nests from overhead boughs.

The woodburner I drew for my first trip was an eight-wheeler equipped with a six-foot balloon stack. She steamed like a boiler room. Keeping her hot should have been simple. Just toss some fuel into the corners of the firebed and let the rest care for itself. Sounds easy, but how in tarnation could a man poke slabs of wood into a firebox when neither his mind nor his eyes were under control?

To cut the mystery short, each time I swung to and from the firebox door, my backside was nudged by a pair of soft, shapely knees belonging to a saucy girl perched on my seatbox. My spirits rose considerably when I first saw her. The girl, I learned later, was named Judy, but everyone called her the Swamp Angel. She lived in a ramshackle old house in the swamp country and she liked to ride engine cabs.

After missing the rathole several times, I landed one against the hogger's shin. The hogger's name was Johnston. He must have guessed what was spoiling my aim, for he called across the cab, inviting Judy to sit on his lap. My eyes popped when I saw her slide off my seatbox and walk across the swaying cab with all the wriggly motions of a Baker valve gear.

Before going on, let me tell you how we picked her up. As the eight-wheeler rolled over to the switch right after I was hired, I tossed my well-worn bag onto the deck and dodged a bag thrown down and closely followed by the man I was relieving. The hogger introduced himself and asked:

"What do you think of the setup?"

"It's mighty lonesome here."

"You won't think so later on," he promised. "How about bending the iron so we can pull out on the main and get started?"

"Where's our train crew?"

"Ain't got none," he said.

Well, he climbed into the cab while I threw the switch. Then he pulled ahead until the engine was nearly out of sight around the curve before the last car's wheels cleared the points. When they did clear, I threw the lever back toward the main and gave him a back-up signal with my cap swung at arm's length.

Johnston did not bother to answer my signal but the cars stopped with a crash as the slack ran in. Immediately a clatter started at the engine and ran back along the train until the last car almost bounced off its trucks.

I gave the situation a little thought while a half-mile of empties rolled slowly past me, and could not find the answer. I had asked for a job firing, with a chance to jerk the throttle later, and been given the woods run. But I sure hadn't figured on being ashcat,

brakie, and flagman all rolled into one.

Anyhow, when the engine went by, I caught the tank step. Wondering if the other man had left any fire on the grates, I yanked the firedoor chain and started throwing slabs.

"I'll take it easy till you get a fire into her," said Johnston.

Suddenly he reached for the whistle cord and blew three long piercing blasts. I was familiar with sharp signals but that one had 'em all beat.

"With all that noise," I yelled above the roar of the two-inch Monitor injector, "I'll bet there ain't an alligator left this side of the Suwanee River."

"I blew the whistle," he said, "to tell the Swamp Angel we was coming."

Well, sir, I didn't know what he was talking about. I sized him up as a bit queer and let it go at that. Ten minutes afterward, I found out.

We were hardly out of sight of the logging camp when he shut off steam and eased to a stop near a desolate cypress pond. There, so help me, stood as neat a piece of female flesh as you'd want to clap eyes on. Bushy black hair, snaky green eyes, a sleazy green dress, and breasts that jutted out front like a pair of headlights. Her broad smile showed a row of pretty white teeth. All in all, right nice-looking.

The girl waited beside the track until Johnston got out and helped her into the cab. Her shapely rear end parked itself on my seatbox.

The hogger said: "This is my new fireman, Frog Smith. Frog, meet the Swamp Angel!"

"Hello," I said. "Are there any more like you where you come from?"

"I do have a younger sister," she said, "and I am pleased to meet you."

At that moment my opinion of Otter Creek underwent a quick change. *There must be something to the swamp country after all,* I decided. *A boomer might consider settling down here permanent and growing whiskers. Well, anyhow, sticking around for a good long spell. Maybe a month or two.*

The next few miles I will always remember. Somehow, I kept on firing the engine, and even while Judy was moving over to the right side of the cab I resisted the temptation to make a pass at her. Evidently she was Johnston's girl. With one hand on the throttle, the hogger clutched her around the waist as the old engine went rocking and *click-clacking* over the rail-joints.

This here situation, I decided, *is just too rich to last. I wonder—*

And it didn't last. With an abrupt clattering of steel wheels on wooden crossties, the tender took to the ditch and we were derailed before Johnston could untangle his arm from Judy's attractive figure and find the brake.

Naturally, we unloaded to see what could be done. There wasn't much. With one pair of wheels off the ends of the crossties, our wrecking frogs were useless. All we could do was whistle for help.

"I'm sorry," pouted the Swamp Angel. "I was really enjoying this ride."

"So was I," said Johnston, "but if you don't make yourself scarce before Guy Lathan and his section boys arrive, there'll be hell to pay. So long, kid! Meet me again when you hear my whistle leaving camp."

"I will," she promised.

Waving gaily, she vanished into the palmettos. But the damage had been done! While I was throwing down long slabs to use in rerailing our jaywalking tender, Johnston busied himself with covering up the footprints made by Judy's high-heeled button shoes.

He might have saved himself the trouble. Along with the section crew came the woods boss, a big fellow named Franklin. That guy knew his stuff. In no time at all he found a few footprints that the hogger had missed.

There was no use denying that a female had been riding the engine. I squirmed out of it myself by saying I didn't know that picking up hitchhikers was against the company rules.

"The hell you didn't!" said Franklin. "Okay, you're new here. See that it don't happen again."

Then he scribbled an order for Johnston's time. I asked for the engineer's job, but the boss shook his head.

"You're too young," he said. "We need an older man with more sense."

Next morning a middle-aged Romeo named Collins took the throttle, and I went on heaving slabs. Johnston had tipped him off as to what was happening, and Collins carried on where the other fellow had left off. He'd take the string of empty cars to the loader and while the logs were being stacked on them he would run for water. His method was to leave the siphoning of a tankful of water to the fireman, meaning me, while he took the girl for a quiet stroll beneath the moss-draped live oaks.

That went on for some time. Meanwhile, it was common gossip that the

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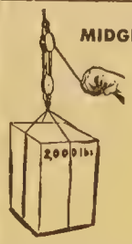

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iron-fisted woods boss had a girl friend somewhere back in the swamp, but we didn't know her name. One day I was siphoning the water, as usual, from a small creek while the hogger and Judy were meeting secretly some distance up ahead. Without warning, Franklin passed me on a big black horse, riding in that same direction.

Whether or not he suspected what was going on I can't say, but I knew he'd find out soon. There was no way to warn Collins except by blowing the whistle. That would make enough noise to wake the dead and would bring the track gang to the scene on a run. So I laid off.

The situation was going to foam over anyway and there was no help for it. So I decided to play dumb a second time. I went on taking water until the tank was full.

By that time Franklin and the engineer returned. Both men looked like the wreck of the Old 97. The woods boss had lost his false teeth, and Collins' head was scratched and bruised as if a hobnailed boot had walked over it. From all indications, the boss had ridden in unannounced on a beautiful love scene involving his girl friend.

Collins climbed back on his seat without a word and took the throttle. It was some time before I mustered up courage to break the silence.

"What," I asked, "happened to Judy?"

"The little bitch scooted away in the woods," was all he said.

But that didn't end the matter. One of the teamsters had been hunting squirrels that day under the live oaks and had seen the whole thing, including the fight of the century, and I guess he felt it was too rich to keep to himself. Anyhow, he spilled the story in the cookhouse that night, after which both Collins and the woods boss were canned for fighting while on duty.

As a result, I inherited the job of running the eight-wheeler, with the help of a new ashcat. One misty morning the Swamp Angel showed up in the engine cab as provocative as ever. She snuggled over to my side of the engine like nothing had ever happened. It made me shivery. But that gal was poison, and I pushed her away. I had no desire to take up where Johnston, Collins, and Franklin, to mention only a few, had left off.

Besides, by that time I had begun to make dates with her sister, a sort of junior edition of the Swamp Angel. It was okay with me for the fireman to entertain Judy if he wanted to. ●

Rails in the Wilderness

by ROBERT W. RICHARDSON

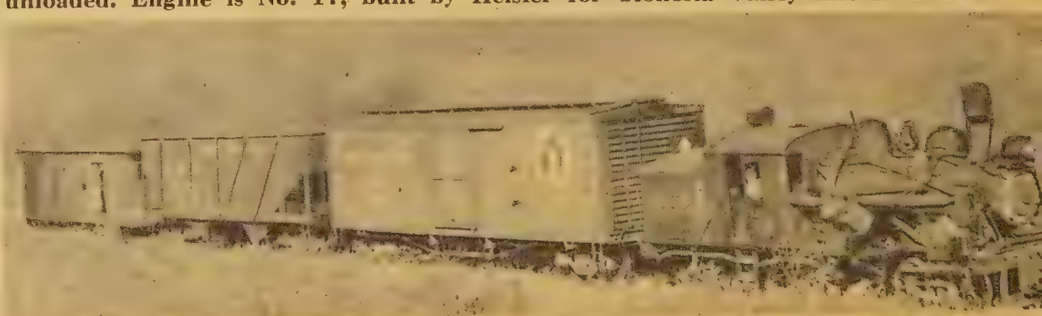
Proprietor of Colorado Railroad Museum, Box 641, Golden, Colo. (Photos by the author)

A DETAILED MAP of Pennsylvania shows a fly speck named Hallton at the edge of Allegheny National Forest, not far north of Pittsburgh. This area is a hilly wilderness with huge rock formations and winding trout streams. Formerly, it boasted a number of rail lines whose spurs tapped the big woods. There were lumber towns, too; but those, like the railroads, have been swallowed up by the wilderness. Here and there you can still see a small camp for hunters or fishermen, and that's just about all.

Many years ago the standard-gage Clarion River Railway met the narrow-gage Tionesta Valley line at Hallton, near the point where the limpid waters of Spring Creek flow quietly into the Clarion River, and both roads used the same double-gage trackage for a couple of miles alongside the creek to a clattering sawmill half a mile upstream.

Each road operated on schedule, after a fashion, subject to equipment breakdowns and shortages of materials

Clarion River Ry. train at Portland Mills, Pa., where pupils were loaded and unloaded. Engine is No. 17, built by Heisler for Tionesta Valley line in 1916.



Tionesta Valley's No. 10. pictured en route to Hallton, Pa., was built by American Loco. Company in 1904.

or freight. Both roads delighted rail-fans. The mornings in the high hills are misty, rain clouds rise swiftly, and in those days rattlesnakes kept all but the more determined fans from venturing into the weedy brush.

Years ago Hallton was a small village with meager rail facilities. A single-story, unpainted, frame building served as the station. One man did all the work in and around it, besides handling the express office, the post office, and railroad bookkeeping. School children in the vicinity rode the "steam cars" under contract to the nearest school or to a point reached by the school bus. Near the depot you could have seen a runaround track with a scale, two short spurs, a water tank consisting of a pipe connection to a spring, and a two-stall wooden engine-house, one stall having narrow-gage tracks, the other standard-gage. There was no shop. Just about the only available tools were a few wrenches, hammers, and jacks.

Clarion River Railway followed the same routine for years. A standard-gage geared locomotive, No. 17, built by Heisler, would puff out of the tiny roundhouse at 9 a.m. on Mondays, Wednesdays, and Fridays, do a little switching at the mill and assemble a train of from two to seven cars at the depot.

No. 17 had a three-position coupler which allowed her to switch slim-gage wood racks or perhaps bring out a box-car or two of charcoal or a tank of acetic acid for some Pittsburgh steel mill. The veteran hogger, J. B. Lyle, and Fireman Jack Rimer, nursed their engine into giving fairly dependable service. There was no other shop force.

At 12:45 the genial conductor sang out, "I'm ready when you are." Then the worn gears started clanking while the stack gave forth a hurried chuffing that sounded as if the speed were several times the 10 to 14 miles an hour that the "old gray mare" maintained. She couldn't have stood the strain of much higher speed, even if the tracks had been well maintained instead of showing more rotted ties than solid ones.

FIVE MILES and 35 minutes later the wheezing Heisler passed the whitened timbers and weed-grown foundations of Arroyo, a former mill and town. There Mr. Lyle whistled for one of the four road-crossings on the 11-mile standard-gage line. Another curving mile and a quarter brought him to the bridge, a five-span deck-girder affair resting, not too securely, on trestle bents placed on timbered piers. Two of the ancient bents had assumed a rather alarming canted position. But the villagers rarely saw it from below, so they ignored it.

At 1:55 p.m. and 9.7 miles from Hallton, the train pulled up to the site of the old Portland Mills depot, which had become simply the rutted end of an abandoned street. Who could guess that this place had once been a busy junction point, with its own engine-house and other railroad structures? Mr. Lyle stopped there to pick up the local postmistress, and 15 minutes later he came to the Carman runaround, the road's end, steaming past the deserted old general store of the deserted rail-junction town.

The maneuvering at Carman seldom varied. No. 17 was uncoupled and ran light the 500 feet or so to the boarded-up Baltimore & Ohio station. Next she brought back the cars that the big road's local freight had left there. In doing so she had to pass her own train, which she then pushed up to the depot. After the outbound cars had been uncoupled, the train was made up for the return trip to Hallton.

Here, in the shade of overhanging trees on a drowsy summer afternoon the crew would await the arrival of the northbound and southbound B&O passenger trains. As they waited, Mr. Lyle would tinker with the more exposed parts of his Heisler while Mr. Rimer was filling a jug with cold sparkling water from a nearby spring and the conductor was readying some bread-containers and perhaps an express parcel or two. Sometimes the crew napped on the coach seats to pass the time. It was a halcyon existence.

Usually only the southbound B&O train stopper at Carman. Both trains

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Tionesta Valley side-door caboose No. 110; this type was outlawed many years ago.

came and went with a rush of noise. The smart-looking passenger cars seemed to be turning up their noses at the shabby little Clarion River engine and her waiting train with its boxcar-like combine. Passengers from distant points would stare incredulously at No. 17, especially if she happened to be sporting her summer-season balloon stack, and would ask the B&O trainmen such questions as "What is it?" and "Where does it go?."

At 3:45 p.m. after the mailbags and full bread-boxes had been stowed aboard the combine, Mr. Lyle would toot his peanut whistle twice and begin highballing back to Hallton. He made the same leisurely running time.

If it happened to be a school day, he'd park the train alongside a field opposite the Portland Mills grade school till 4:25 or so. By that time the grade-school pupils had clambered aboard, and a school bus from Ridgway, the county seat 15 miles away, had brought Hallton's several high-school students to Portland Mills. When every passenger was seated in the combine, Mr. Lyle would whistle off and head into the late afternoon shadows of the forest.

SOME mornings the grade-school pupils were conveyed to Portland Mills by a curious train consisting of a tiny, four-wheeled, gasoline locomotive towing the combine. That engine was built by the nearby Brookville (Pa.) Locomotive Company. Despite her size, she could pull a couple of freight cars and did so when the 17 broke down. Every Tuesday, Thursday, and Saturday she chugged to Carman, usually without the combine and with the conductor of the steam run acting as the entire crew.

On those three days the standard-gage 17 would be resting her weary bones in the enginehouse, and at 7:30 a.m. daily the same engine crew rolled out the narrow-gage 19, which, like 17, was a former Tionesta Valley Railway Heisler. No. 19 chuffed merrily over to the mill and stood beside the coal pile, whereupon all hands took turns at coaling the tender by a shovel. (Today, if a diesel locomotive fireman were asked to do that much muscular work in a month, he'd bring down the Brotherhood's wrath upon the railroad company pretty damn quick.)

After that, the crew sorted out the empty racks, took them across the creek, and coupled on the caboose. At 9 a.m. they began the run to Route 68. The engine, a balloon-stacker, climbed 15 miles upgrade through the lonely, beautiful Spring Creek Valley in the national forest. The track was laid with 40-pound steel. For a short distance it parallelled a dirt trail, but most of the way there was neither a road nor a habitation in sight—just hills thick with brush, rattlesnake-hiding weeds, and second woodland growth. The crew operated over in the wilderness.

About halfway up they passed a few old wooden houses, the remnants of lumber camps Duhring and Parrish, now used by summer vacationists. In time they reached Pebble Dell, where the line's one siding rotted among weeds and tall grass. The steepest grade lay ahead.

The water tank had disintegrated, but they filled the tender by dropping a hose into a convenient beaver pond. In more prosperous years, No. 19 had

been used as a helper up that very hill to boost log trains over the top, via Sheffield Junction, to the huge sawmill at Sheffield. Now, leaving the empties behind, she panted the rest of the way to the end of track, the loading point at Route 68. Here was a paved highway, the nearest one to Hallton, and the narrow-gage line had been built to haul logs the intervening distance. The loaded racks were taken down to Pebble Dell; then the empties were pushed up to the highway.

The crew being hungry, they made a leisurely attack on the lunch boxes and thermos bottles. Then they began the two-hour return trip, but were interrupted by a water stop or two and maybe some tinkering around the engine. Arriving at the Hallton runaround, a mile above the enginehouse, they cut the train into segments of four or six cars each. At length No. 19, with cylinder cocks open, boosted those cars from the sag across the creek and up the hump to the mill yard.

Pretty soon the lengthening of shadows in the narrow valley signified quitting time, and weary old No. 19, with her fire dumped, coasted into the gloomy engine shed.

By mid-1920's the virgin forests had all but disappeared from that area and the passenger traffic kept dwindling as more automobiles appeared on the highways. Once-busy logging towns vanished into the brush, and with them went most of the activity of the Clarion River and Tionesta Valley railways.

The Susquehanna Chemical Company, which owned both roads, made an effort to save the CR in 1947 by buying a handsome ten-wheeler, No. 119, from the abandoned Susquehanna & New York. But the 119 weighed 156 tons, a terrific overload for the shaky Clarion River tracks, and she finally rusted her heart out in the weeds near Carmen, along with old No. 17.

Meanwhile, the company had gone into a receivership in the summer of 1948 and had torn up all of their rails in September. Loading the gas engine on a truck, they had taken her to their plant at Westline, Pa. As for the narrow-gage 19, she had been assigned to yard work at Brookville, Pa. Today, if you ever go fishing or camping in the Allegheny National Forest you would have to look hard for signs of the two old-fashioned little railways that used to chug bravely through the wilderness. ●

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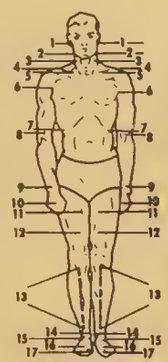

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Chinook Charlie Comes Home

A Fiction Story by DAVE MARTIN

IT IS LATE FALL in the long ago, almost the tail end of Injun summer. I loafed during the warm months in the Rockies but am now riding a drag freight down out of the mountains and through the foothills till we come to a little frame station called Logan, and there I am rudely kicked off by a head brakeman.

That's me, the Kokomo Kid. Blanket stiff from Indiana, also points east and west. Right now I am in the sheep country of Montana, landing almost on the lap of the station agent. We get to chinning about transporation.

"Number 4," he says, "is an hour late." Four is one of the limiteds that run between Seattle and St. Paul, and a tough baby to ride. "But," he adds, "a fast freight follows Four out of Helena, and this string of rattlers has a good, friendly crew."

While we are chewing the fat, away off in the west I hear the bass voice of the St. Paul limited echoing among the hills. Next I see a smoke plume trailing across the blue sky. It's black smoke. The fireman must be having trouble with his coal. Pretty soon I hear the rails hum as she races down the mountain side toward me.

Then she lets out the last sigh of bleeding air in her stop at Logan, her fifteen solid Pullmans coming to rest at the depot. And while she is standing there, panting and straining to go, I size her up and say to myself: "I don't think I will ride you. That freight suits me all right."

The hogger gives a half-dozen toots with his whistle. They are only whispers for sound, but they are some kind of signal. From where I am parked on an idle baggage truck I watch the play. As the brakeman starts on a run for the front of the train, the hogger in the gangway points up toward the rear of the tender. In a minute the brakie comes back, and with a real, live, flint-faced Injun in tow.

As they pass me I hear him tell the redskin, "I'll tear you apart if I ever catch you on this train again."

But Flint-Face is ambling along stolidly, paying no more attention to such palaver than he'd pay if one of them was in St. Paul and the other in Seattle. They stop at the far end of my truck, the brakeman still laying down the law, the redskin gazing calmly over his head at the everlasting hills.

Talk about Injuns! This one is a picture of the American aborigine. Tall as a tepee pole; erect as a sapling. He wears overalls held up by a beaded belt, a spotted cowhide vest with the hair side out, and buckskin moccasins ornamented with more beads. No hat. Just a lone eagle feather stuck in his black, braided hair.

THE TRACK east out of Logan is straight like an arrow as it shoots into the Gallatin Valley, with a sharp drop in the grade. That big Pacific starts right in to ramble.

Flint-Face is as still as a statue. The brakeman stands watching him. I am sitting on the truck eyeing them both.

By now the train is clicking over the rails and picking up speed. The brakie stays as long as he possibly can. Then he makes a run at a car platform and almost jerks his neck out of joint as he clutches the grab-irons.

All this time Flint-Face stands there like a stone man. But when that last car zips past he comes to life. Quick as a flash he shoots through the air, swings onto the rear platform, skins up on top like a cat, and runs over the car roofs toward the engine. The Logan agent and I gape at him until he leaps out of sight on the tender once more. I am wondering what will happen next.

Then the agent tells me: "It's a shame to spoil a ride for a guy who can swing up on a train and skim over car roofs like that, but orders is orders. Now I must wire ahead to Bozeman that Number 4 has got her tank passenger on board again. The brass collars are mighty touchy about bums riding the passenger trains."

When the fast freight rolls into Logan and clatters to a stop, I hunt up a nice new gondola and quietly drop down inside. The wire about the tramp on the engine tank must have got action. When we grind to a stop at Bozeman I see the Injun on the depot platform. In a minute, silent as a shadow, he vaults over the side of my car.

We make this string of rattlers as

far as Livingston in peace and amity. But there, one of the toughest brakemen I ever met up with spots us. What that bird says is plenty. It seems that if we don't get off the train and stay off there won't be enough left of us put together for the coroner to hold an inquest over. What a fine disposition that man has! And right after the Logan agent telling me there is a "friendly" crew on this train.

Well, not looking for trouble, we get off like he told us to, but as soon as his back is turned we sneak on again. The train is slowing down for Big Timber when over the side of the gondola climbs our hard-boiled brakie. Without asking for an explanation, he whirls me around and plants a heavy brogan on the seat of my britches. I am surprised and pained.

Then he turns toward Flint-Face, but when he sees that redskin towering half a foot over his head he changes his mind and boots me again, instead. It don't take a very brave man to do that, as I am only five feet three.

So we get off at Big Timber and this time we stay off. I send him to the 'bo jungle in Big Timber to start a campfire and rustle some tin cans for a stew. Then I go up on the main stem and get the stuff to cook a mulligan.

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OVER THE STEW, with the campfire between us and the stars overhead, paleface and redskin have a pow-wow. By sign language and pigeon English, Flint-Face tells me about himself. He was out on the Coast visiting tribes of the red brother in California, Oregon, and Washington. Now he is heading back to the lodge of his father at Lodge Grass, Montana. His name is "Chinook" Charlie. Chinook in the native language means "warm wind," the soft breeze that comes out of the west to end a bitter cold spell.

In the redskin way of reckoning time, a day is one sleep, a month is one moon, and a year is one snow. I ask Charlie how old he is. On his fingers he tells me, "Twenty-two snows." He left his father's tepee four snows ago. Then he shows me a letter that the Injun agent sent to him in California. The letter says that Charlie's father and mother are old, the fire in the lodge has gone out, and their bones grow cold. They want Charlie to come home before the great Manitou calls them to the Happy Hunting Ground. And so Chinook Charlie is going home.

We both lapse into silence. I am looking back across the years and thinking many things. The full moon comes up out of the sagebrush and mirrors her cold image in the wide Yellowstone. Coyotes mosey down from the hills and howl at our campfire. A flock of late southbound ducks rises off the river and honks by overhead.

As I said, it is late fall, deep in November, and too far north for safety if Old Man Winter should throw us a blizzard. The night air is almost as balmy as spring, but the moon has a double ring around it. And those ducks rising out of the river! No self-respecting duck gets up out of bed after dark to travel unless he feels Jack Frost stealing up on him.

It ain't so bad for the Injun. Charlie told me at Big Timber that he was just two sleeps from Lodge Grass. But I am headed far down in Dixie, and that trip is a lot further.

Late in the afternoon we make a Burlington freight out of Billings. Only ninety miles down this line is Lodge Grass, where Charlie can unload. But out of the north a chill wind has sprung, and scudding along on its wings is the blackest storm cloud I ever seen.

Shortly after dark we bump to a stop at a station called Toluca. Nothing there but several boxcars on a siding and the station itself. Every car in our string is sealed. That leaves us nothing to ride but the rods or the bumpers. And by this time an icy wind is chilling us to the marrow.

At Toluca we find that not all of the tough shacks are on the Northern Pacific. The Burlington has at least one, and the lousy scissor-bill is on our train. And even worse, is on our trail. He remarks that we are stopping at Toluca permamently.

But Charlie thinks different. He is only forty-eight miles from home and he figures he'll go right on through.

FOURTEEN miles down the line from Toluca the Burlington grubbed out a wide spot in the sagebrush, put in a siding, a derail, and a depot and called the place Hardin. Before we get into Hardin the black storm cloud is heaping its frigid wrath on our heads. It has us whipped. We are will-

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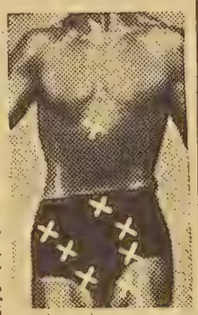

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ing to call it a day. As our freight sidetracks for a northbound train bucking the blizzard, we drop off our bumper and beat it to the depot stove for a thaw-out. The last we see of our freight through the frosty waiting-room windows is its red marker lamps fading out down the track in a cloud of powdery snow.

All night the storm rages. Daylight comes with no letup. The air is full of wind-driven snowflakes, but the ground is gray and bare. Wind won't let the snow lie. The thermometer outside says 38 below. I huddle near the stove.

The agent at Hardin is a fine feller, an old boomer who finally settled down and raised a family. They live upstairs over the depot. Must have been four or five gals in the outfit. After daylight they drift downstairs and across the waiting-room, one at a time, and durned if each skirt that shows up ain't prettier than the one before her. The old man works the night trick, and two of the gals, Sadie and Annabelle, split up the day watch.

Pretty soon, down the stairs comes a couple of them with enough piping hot grub for a gang of harvest hands.

Bye and bye storm reports begin to seep through on the wire. While I am swigging hot Java and digging into sugar-cured ham and hen fruit I get an earful of bad news. All train schedules are shot to hell; freights are tied up on sidings or abandoned. Somewhere in the eighty-five-mile stretch between Sheridan and Hardin a northbound freight has completely disappeared. Maybe she's tied up on some blind siding, maybe dead out on the main.

Late afternoon the traffic snarl eases up a little, but Old Man Winter is just as busy as ever. That blizzard is blasting the north side of the depot like a gong-beater pounding a bass drum. The clock has crawled around to three p.m., and Annabelle is at the operator's desk. I hear Toluca calling Hardin on the wire.

I slide over to the window to catch every click of the sounder. Then suddenly Annabelle lets out a scream.

BY THAT TIME I have got the awful story. Seven cars consigned to the Government irrigation project at Cody have been blown out on the main line at Toluca and are headed for Hardin. Five cars are loaded with sack cement, the other two with dynamite. Toluca is asking Hardin to throw these runaways onto the derail.

In a flash I am inside the office and at that girl. She can work an ordinary trick, but this thing has her up in the air. She gasps, "Call Dad quick!", sending one of her sisters after him. All I want from her is a switch key. When I get this I motion to the Injun, and we both start to buck our way through the howling blizzard for three hundred feet to the switch-stand.

As we brace ourselves I make it clear to Chinook Charlie what is happening and what we must do to prevent it. I know that frozen dynamite is hard to explode, but if five cars of cement should pile on top of two carloads of it, all hell might break loose.

Finally, out of breath, we get to the switch. After it's unlocked I find the bridle rod packed with fine hard snow frozen into a solid mass. Although we tug and strain at that switch handle, we can't throw it around. Then I see the old man bucking the wind down the track toward us. We three put our weight against the switch handle. Nothing doing. That derail stunt is out.

Suddenly an idea is born. Cupping my hand, I yell into the old man's ear, "What's the grade between Toluca and Hardin?"

"There's a drop of 286 feet in the fourteen miles," he shouts back at me.

Then I spring my idea on him. Unless those cars whiz through here like a bat out of hell, the Indian and me will try to nail a side ladder and tie down the brakes. It's our only chance. If we fail and the wheels get me—well, I don't mind too much. I always figured on that kind of finish anyhow.

I explain the situation to Charlie. All he does is grin and grunt. It is kid play for him. We head back to the depot. On the platform we will stand a chance for grabbing onto ladders.

Pretty soon, on the racing wind, even before I see the oncoming cars in the swirling snow, I hear the faint click of wheels on the rail joints. Louder and louder it grows. Finally, through a million flying snow crystals, I make out the huge bulk of a boxcar end coming at us, and coming fast.

As those fleeting ladders zoom past us I run for them. Three, four, five cars pass. They are racing like the devil. In desperation I lunge at the sixth ladder —and catch it.

But I can't hold on. The damn thing jerks out of my numb hands. I skid across the snowy station platform and roll up in a bundle of rags against the depot. Then I stagger to my feet and sag into the old man's arms. All I can

babble is, "Where's Chinook Charlie?"

And against the wind I just barely hear the old man shout, "He made it!"

After that we settle back and wait. We're both wondering whether or not the redskin can head off a first-class wreck. The clock hands crawl like a race between two lame turtles.

Finally, at midnight, the rusty Mogul that hauls the mixed train chugs back to Hardin with the captured runaways. They found all the cars still on the track. They were spotted right in the front yard of the famous Custer battlefield, with every brake tied down tight!

And still decorating the top of one of the dynamite cars, stark and stiff in the last big sleep, is Chinook Charlie. He has finally come home—not to his ancestral lodge but to the Happy Hunting Ground of tribal legends.

That was many years ago. But even today, when the warm breath of a chinook wind steals out of the West it whispers a memory of the flint-faced Injun who died a railroading hero. ●

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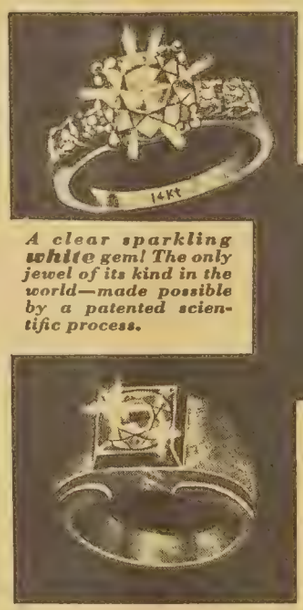

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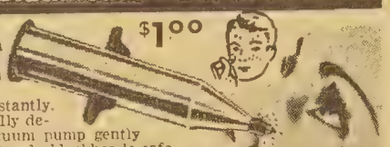

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RAILROAD HOBBY CLUB

by SY REICH

A RARE HOBBY is collecting buttons from the uniforms of trainmen and other transportation employes. A leader in this field is Don Van Court, 13 Garden Pl., Chatham, N. J. "Like most young railfans," he writes, "I started by collecting train orders, tickets, timetables, car seals, and photos. Until recently I was one of the North Jersey Recording Associates, producers of what we believe to be the best railroad sound recordings available. Now, however, my two main interests are railroad history and buttons."

Sy Reich

After 20 years of collecting Don has over 3000 buttons from nearly 1000 companies from all 50 states in the Union and from every continent. He has buttons from railroads, terminal companies, sleeping-car lines, horsecar lines, trolley lines, subways and els, and cable-car companies. Since 1950 he has been the railroad and transit expert for the *Bulletin* of the National Button Society, and has written many articles on his specialty. He's a mechanical engineer for Western Electric, is married, and has three small sons.

"Perhaps some reader," he adds, "can held me to gather information on uniforms used by transportation lines. American railroad buttons date back to the 1860's; English go back as far as 1839. There is no available record of which railroad company was the first to adopt distinctive buttons nor what those buttons looked like."

Waning Steam Power

Our next issue will publish a roster of the steam locomotives remaining on common-carrier roads in the United States. This up-to-date, illustrated feature should interest a great many fans. It will, of course, include specifications.

Connecticut's last active steam locos are being sold, reports William B. Young, South St., Ruxbury, Conn. Both are well-kept 0-4-0 "fireless cookers" which American Brass Co. of Waterbury operated for years but is now replacing with one gasoline-powered Trackmobile. The enginehouse has been torn down and the engine-filling boilers converted to oil.

One 0-4-0 was built by Heisler in 1940, the other by H. K. Porter in 1946. Both have 25x20-inch cylinders and a 7½-foot wheelbase and operate at a boiler pressure of 125 pounds. The Porter had been built as a regular steamer but was rebuilt to a fireless. She weighs 57½ tons and has 23,000 pounds of tractive effort (50 percent adhesion), and has been known to push six loaded coal cars up a 3 percent grade. The Heisler weighs 54 tons and boasts a tractive effort of 27,000 pounds. We hope Bill Young will tell us who buys these two engines.

Last summer the Duluth, Missabe & Iron Range (see front-cover picture) had six M-3 and M-4 Mallets plus a number of 2-8-0's, 0-10-2's, 2-10-2's, and 2-10-4's stored at Proctor, Minn., and may still have. A DM&IR 2-8-0, No. 199, was switching an iron mine near Hibbing, Minn.

At Ashland, Wis., the Soo Line had two 2-8-0's stored for iron-thawing duty, while at Hancock, Mich., the Duluth, South Shore & Atlantic maintains an 0-4-0T on display to advertise the Arcadian Copper Mine. The Huss Pulp & Paper Co. has a 2-6-2, No. 6, stored at Ontonagon, Mich. The foregoing data comes from Jay Lentzner, who recently made a trip through the region.

Railroad Photo Club issues a duplicated newsletter that tells about remaining steam locos, coming fantrips, and other spot news. You can get details by sending a 4c stamp to the club's organizer, Jeffrey D. Clack, 1106 11th St., Wheatland, Wyo.

Next time you visit Las Vegas, Nevada, you can see the city's recent gift from the Union Pacific, 0-6-0 No. 4442, displayed in UP Park.

The British, as a whole, are far more railroad-conscious than their North American cousins. For example, the Bluebell Railway Preservation Society, one of several such organizations, boasts 1,300 members from every level of British society who have one thing in common—a love of old trains and especially steam locomotives.

This Society owns two ancient steam locos, four and a half miles of track, a station, a signal system, and a homemade inspection pit. Last year British Railways abandoned its Bluebell line—between Horsted Keynes and Sheffield Park in Southern England, but the Society has since reopened the road and is now operating it.

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"Who wants to buy two 2-8-0 steam engines?" inquires C. F. Feather, 442 Salvini Dr., Pittsburgh 16, Pa. "The Preston Railroad of Crellin, Md., which has applied to the ICC for permission to abandon, wants to sell its No. 19 (old W. Va. Northern No. 9, Baldwin, 1906) and its No. 18 (Baldwin, 1904). One engine was operated until Feb. 1960, the other being cannibalized for parts."

The last of seven little cabbage-stacked narrow-gage steam locomotives has huffed and puffed itself into oblivion at Hardeeville, S. C. For years these iron horses logged the flatwoods and swamps for their cargo of logs through some of the roughest logging operations that ever faced a southern lumberjack. Since 1950 their traveling was confined to the Savannah River Swamp of South Carolina and Georgia, west of Hardeeville, in stands of cypress and tupelo gum. Time and progress finally have overtaken these little swamp monsters, whose retirement brings up a crescendo, "Thanks for a job well done," from oldtimers who knew their worth in the logging industry.

Over the several-mile long track came thousands of logs to feed the saws of the Argent Lumber Co. for over 40 years. Much of the track was laid through swamp on rough green piling driven into the ground, two to the crosstie. But after Union Bag-Camp Paper Corp. acquired the lumber company, the brave little railroad was doomed.

Canadian Pacific's general manager, J. R. Strother, has told Al Jorgensen that CPR's last steam engine in regular service ran July 26 in the Montreal area. Except for a few engines held at St. Luc, all remaining steam power is being taken to Angus for scrapping. CPR may possibly use a few steamers this winter.

Now that the Helen Thatcher White Foundation has canceled a deal to buy the Durango-Silverton narrow-gage in Colorado, the line's future is doubtful. An ICC hearing on D&RGW plans to abandon it will be held soon. Standard Metals Corp. of Silverton opposes abandonment because it needs the branch as a freight outlet. Meanwhile, the line ended another successful passenger season with steam. This news comes from K. A. Riepe and Larson M. Powell.

Four beautiful colored postcards, all different, showing the 3-foot-gage EBT and its steam power, are available in lots of six for 25 cents plus 8 cents postage. Contact C. R. Wilburn, Operating Vice President, East Broad Top Railroad, Rockhill Furnace, Pa.

Denials of F. H. McKenzie's statement that the East's only common carrier with steam engines in regular road service is the Virginia Blue Ridge come from Bill Warden, Al Shade, and John Killoran, Director of Public Relations of the Buffalo Creek & Gauley Railroad, Box 1577, Huntingdon 16, W. Va.

The BC&G have been operating continually with steam for 56 years and aims to keep on doing so. It is now using 3 2-8-0 types between Dundon and Widen, W. Va., on 18.6 miles of first track, 5.25 miles of sidings, and 11.8 miles of second track, making it probably the largest common carrier in the U. S. operating solely with steam power.

Mr. Killoran boasts of "3 Consolidations, 3 Mikes, 2 Shays, and a Climax under lease to Ritter Lumber Company but operating over our lines."

Says he: "Cooperating with the NRHS, C.P. Huntington Chapter, we plan to run at least 4 fantrips a year. Our line is a wholly-owned subsidiary of Elk River Coal & Lumber Co. We have some interesting rolling stock. Fans are invited to visit this road and its enginehouse and shops at Dundon."

Other steam common carriers in the East are the East Tenn. & Western N.C., which uses three 2-8-0's for freight between Johnson City and Obrien, Tenn., 11 miles; and the Ky. & Tenn., three 2-8-0's, between Stearns and Oz, Ky.; and the Morehead & N. Fork, also in Kentucky, 4 miles, two 2-0-6-0's and a 2-6-2; and the Brimstone RR., New River, Tenn., which operates Shays. In N. Carolina, according to H. Reid, the 3.7-mile Cliffside RR. also uses steam.

Earl Spencer of Spokane, Wash., lists these locos which he says are stored outside in a good position for photographing: Wash., Ida. & Mont. 4-6-0 No. 1, Potlach, Ida.; Medco Corp., Willamette Shay No. 7., Medford, Ore.; Yreka Western 2-8-2 No. 18, Yreka, Calif.

Reading Steam Trips

On October 15 and 23 the Reading will operate the last two steam fantrips of its fall season with its now-famous 2124. These trips are so popular that you had better get a reservation in early in order to be sure of going along.

Oct. 15: Leave the Reading station at Wayne Jct. 7:45 a.m. on the trip to West Milton, Pa., via main line and Catawissa branch. Steam engine will be cut off at Tamaqua and two diesels will take the train over Catawissa Mts. No. 2124 will then run light to West Milton and pick up the train there for the return trip. (Steam loco barred from Catawissa branch by clearance restrictions.) Speed pic stops at Port Clinton (steam) and Hazelton Jct. (diesel). Scenic pic stops at Ringtown and Mainville, both on Catawissa branch. Return to Wayne Jct. 9:18 p.m.

Oct. 23: Harrisburg, Hershey (noted chocolate town), Lebanon, and Reading, Pa., to West Milton. (Otherwise same schedule as on Oct. 15.) Leave Harrisburg 7 a.m., return 8:25 p.m.

Write to the Reading's Passenger Dept., Reading Terminal, Philadelphia, Pa., for flyers on these two dates. The company is considering a steam trip or two this winter and wants suggestions. Tell them whether or not you think there should be winter trips, and if so, to which points?

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Other Coming Events

Oct. 9: Long Island Rail Road sponsors Fall Foliage Tour to Oyster Bay, Islip, Smithtown; $4.50 (kids $3).

Oct. 16: Washington, D.C., Chapter of NRHS sponsors an electric- and diesel-powered trip over the Pennsy's Northern Central Div. to York and Spring Grove, Pa. There will be pic stops and a visit to York Museum. Fare (tentative): $6 (kids, $3). Contact Trip Committee, P.O. Box 487, Ben Franklin Station, Washington 4, D.C.

Oct. 15 and 16: Canadian Pacific steam will haul annual fall foliage trip out of Montreal. The Laurentian Mts. will be scene of movie runpasts. Contact Trip Committee, Canadian RR. Historical Assn., P.O. Box 22, Station B, Montreal, Canada.

Oct. 16: Wis. Chapter of NRHS sponsors C&NW diesel-powered train from Milwaukee to Baraboo, Wis., to see fall foliage and visit World Circus Museum, including ex-Ringling Circus railroad equipment. Nine hours; bring your lunch or order box lunch ($1.20) with your ticket. If you pay before Oct. 9, fare is: adults $7.50; kids $3.75. Contact Herbert Danneman, 1628 W. Wisconsin Ave., Milwaukee 3, Wis.

October 16: Pittsburgh Chapter of NRHS sponsors trip from Pittsburgh, Pa., to Freeport via Pennsy and P&S. Contact NRHS Chapter, Box 241, Ambridge, Pa. Fare for adults, $7.

Oct. 8: Fall foliage trip over Chateauguay freight—only branch of D&H lv. Plattsburgh 9 a.m. EDT for Lyon Mt. in northern Adirondacks. Fare: adults $3.85; kids $2.45. Box lunch $1. Contact the sponsor: Plattsburgh, N.Y., Chamber of Commerce.

Canadian 2-10-2's

Commenting on H. L. Kelso's article (Oct. issue), which he enjoyed reading, R. F. Corley, 490 Albertus Ave., Peterborough, Ont., Canada, writes:

"The Canadian National's Class T-2-a's (4100-4104) operated only in the East, but about half of the T-1's and all T-4's ran on Western lines. Most of the T-1's, T-2's and T-4's never ran out of Toronto. Incidentally, CNR had 93, not 75, Santa Fe types on its roster.

"Sixteen (not 10) of the Canadian Pacific's 36 Class T-1 Selkirks were semi-streamlined — i.e., Classes T-1-b (5920-5925) and T-1-c (5930-5935). Although CPR built its fifteen 2-10-2's at Angus shops, CNR bought all of its Sante Fe types from outside builders."

The following comes from a Canadian National engineer, P. W. Dumontier, 12934 122 B Ave., Edmonton, Alta., Canada: "We had 4300 Class 2-10-2's, built in 1929-'30 for mountain territory and running Edmonton and Kamloops, B.C. They were the sole freight engines on the main line that worked out of here until May '57."

Now listen to F. H. Howard, London, Ont., Canada: "Mr. Kelso quotes R. L. Kennedy as saying that no Canadian Pacific 2-10-2 ever ran east of Fort William. True, CPR's Class S-2 appeared to have been built for mountain operation. Most of them spent their lives in helper service in the Rockies. However, the first three, 5800-5802, were in Montreal at least from '46 to '49, perhaps much earlier."

Mr. Kelso, now writing an article on Decapods, would welcome anecdotes.

February Issue: (out Dec. 1)

"A Steam-Power Stronghold Today: the Philippines," by B. Thomas Walsh, lively, detailed, first-hand account of island railroads, with many good pix.

Sy Reich will present a list of steam locos that remain on the rosters of American common carriers.

"Frog" Smith has written a feature article on the hazards of railroading on old steam-powered logging lines.

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BOOKS of the Rails

MODERN RAILWAYS: Their Engineering, Equipment and Operation, by Cecil J. Allen, 307 pages, 7¼ x 9¾", illustrated, indexed; Faber & Faber Ltd., 24 Russell Sq., London, England, 45 s.; distributed in North America by The Macmillan Co., 60 Fifth Ave., New York City, $9.

A dependable book. Written by one of the world's top railroad authors and illustrated with over 200 photos and line drawings, it covers in accurate detail motive power (steam, diesel, electric, and gas-turbine) plus many other phases of railroad operation.

Allen is concerned mostly with his own country, Great Britain, but includes modern practice in the United States and other highly industrialized nations. His appendixes have encyclopedic reference value. We commend this book to serious readers. Even if you know little about the subject now, you will probably feel like an expert after you have read it.

UNUSUAL LOCOMOTIVES, Ernest F. Carter, 221 pages, illustrated with photos and line drawings, indexed, The Macmillan Co., New York City, $4.50.

The story of 150 years of steam locomotive development, particularly in England but also in America and elsewhere is told in such a way as to fascinate students of locomotive history. Carter deals with engines that won fame because of their design, their unique power, or their speed.

IMPRESSIONS OF THE TERMINAL, 28 pages, illustrated, Ruth Muriel Eddy, 688 Prairie Ave., Providence 5, R.I., $1.25.

Miss Ruth M. Eddy

While working for two years in the Union Station in Providence, R.I., Ruth observed the many types of people — railroad men, travelers, and loafers — who passed through the busy terminal and she jotted down her thoughts in a dozen neat little poems. We wish she had written one about her uncle, Ernest Mitchell, a retired B&M engineer.

BRITISH TRANSPORT IN 1959, 20 pages, 8 x 10½", illustrated, British Transport Commission, 222 Marylebone Rd., London, N.W. 1, England, 2s.

A review of last year's activities on the British Railways, etc., with many photos in color and black and white, and several diagrams.

CAREERS IN THE AMERICAN RAILROAD INDUSTRY, Charles O. Morgret, 32 pages, illustrated, No. 43 in Vocational and Professional Monograph Series, $1.

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A hauntingly beautiful addition to our library of LP railroad discs is *Detroit Division: An Anthology of Grand Trunk Western Steam Locomotives.* GTW steam power has rounded the bend for the last time, but it lives forever in this tribute from Roundhouse Records, P.O. Box 326, Royal Oak, Mich. ($4.95 postpaid—add 70c on foreign orders). The sequences were recorded at Durand, Oxford, and Royal Oak, Mich. Ten coal-burning engines are heard, five different wheel arrangements. At the very end a brass pounder taps out on his *bug* the passing of an extra freight—a memorable sound in itself, long associated with steam power —and our nostalgic journey is over. ●

Museums

Now in its 16th year of operation, the National Museum of Transport at Barretts Station Road, St. Louis 22, Mo., is engaged in a big expansion program. Its directors are seeking $250,000 to provide railroad and city transit buildings and appurtenances.

This is a non-profit setup. Its first exhibit was a mule-drawn streetcar which had been gathering dust in a garage. Today that lone "hay-burner" has been joined by varied exhibits: 27 locomotives, 20 examples of other rolling stock, signals, lanterns, dining-car china, 14 streetcars, 3 heavy electric interurbans, an elevated car, trackless trolleys, and so on, gathered from many parts of North America and housed on a 65-acre tract.: The transportation library includes 6,000 books.

A museum is being organized 25 miles from Washington, D.C., and 15 miles from Baltimore, Md., by the National Capitol Museum Group, the Baltimore Chapter of NRHS, and the Maryland Historical Society, to display a collection of historical streetcars. First cars to reach the new site will inlude JTC 352 and SHRT 25.

The Atlantic Chapter of NRHS has just installed Georgia Power Co. trolley 997 next to a Seaboard Air Line section foreman's car in the Lakewood, Ga., Transportation Musuem.

A 3.5-mile standard-gage track and museum are being operated in Florida on the 2,000-acre University of Miami south campus by the Miami Railroad Historical Society, founded in 1957. Rolling stock includes old 153, a steam engine, once the pride of the Florida East Coast; a combine passenger-baggage car, a 136-seat chair car, and an old-style caboose, complete with coal stove. The museum also features an armored railroad car, built in 1942 to serve as President F. D. Roosevelt's wartime "White House on Wheels" and later used by President Truman. All this equipment was donated to the University of Miami.

Members of the Society pay for the privilege of operating the train. They also perform chores ranging from conductor to stationmaster. Membership is open to anyone in the U.S.A., regardless of sex or race, who will help to support the country's southernmost steam railroad. The museum is open every Sunday afternoon. A 50c donation entitles visitors to a 30-minute ride behind No. 153. The Society's mailing address is P.O. Box 8033, Coral Gables, Fla.

Random Notes

A new 10-cent booklet on model railroad problems, entitled "100 HO Questions," will be given free to anyone who sends a 3c or 4c stamp as mailing cost to Hal Carstens, editor, Railroad Model Craftsman, 31 Arch St., Ramsey, N. J.

The Far Tottering & Oyster Creek Ry., which delighted two million British children and adults during an exhibition tour, is now housed at Freedomland, the new amusement park in the Bronx area of New York City, as an advertisement for Hallmark Cards. This eccentric little model railroad reminds you of the Fiddletown & Copperopolis. It includes a locomotive named Nellie and coaches filled with animated people and animals.

The CB&Q is considering the possibility of retiring the Burlington depot in Omaha, Neb., and using Omaha Union Station.

As part of the 25th Street ramp remodeling in San Francisco, the Western Pacific has installed the first prestressed concrete ties on the West Coast. Some 45 concrete ties were placed under rails leading to the new ramp built for loading cars on the carferry Las Plumas.

The Western Pacific has requested permission to drop the Zephyrettes, trains 1 and 2, between Oakland and Salt Lake City. These runs are currently the longest held down by RDC's. ●

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TEXAS & PACIFIC SYSTEM

Locomotive roster compiled by Charles M. Mizell, Jr.

TEXAS & PACIFIC RAILWAY

STEAM: 2-8-2 (Mikado) Type

Road No.	Cyls.	Drivers	Boiler Press.	Engine Weight	Tract. Eff't	Builder and Date	
400	27x30	64	200	274,000	58,092	Baldwin	1915

DIESEL-ELECTRIC LOCOMTIVES

Road Nos.	Horse-power	Bldr's Model	Wheel Arngt.	Tract. Eff't	Av. Eng. Weight	Date Built
Freight Service						
1500-1519	1500	F-7A	B-B	57,223	228,894	1949
1520-1536	1500	F-7A	B-B	57-223	228,894	1950
1537-1580	1500	F-7A	B-B	57,223	228,894	1951
1581-1582	1500	F-7A	B-B	57,223	228,894	1952
1500B-1515B	1500	F-7B	B-B	54,354	225,418	1949
1516B-1517B	1500	F-7B	B-B	54,354	225,418	1950
1518B-1530B	1500	F-7B	B-B	54,354	225,418	1951
1531B-1534B	1500	F-7B	B-B	54,354	225,418	1952
Passenger Service						
2000-2007	2000	EA-7	AIA-AIA	52,328	310,559	1947
2008-2009	2000	E-7A	AIA-AIA	52,328	310,559	1949
2010-2017	2250	E-8A	AIA-AIA	54,211	321,730	1951
Road-Switchers						
1110-1116	1500	GP-7R	B-B	60,344	241,377	1950
1117-1124	1500	GP-7R	B-B	60,344	241,377	1951
1125-1130	1500	GP-7R	B-B	59,489	237,957	1952
1131-1136	1750	GP-9R	B-B	59,980	247,070	1957
1137-1144	1750	GP-9	B-B	60,000	246,000	1959
Switching Locomotives						
1000-1001	1000	NW-2	B-B	60,917	243,670	1946
1002-1008	1000	NW-2	B-B	60,917	243,670	1947
1009-1014	1000	NW-2	B-B	60,917	243,670	1948
1015-1019	1000	NW-2	B-B	60,917	243,670	1949
1020-1023	1200	SW-7	B-B	60,884	243,535	1950
1024-1036	1200	SW-9	B-B	60,935	243,739	1951
811-818	800	SW-8	B-B	57.119	228,477	1952

FORT WORTH BELT RAILWAY

1	600	SW-1	B-B	50,000	199,600	1939
2	1000	NW-2	B-B	61,240	245,000	1946

T&P-MISSOURI PACIFIC TERMINAL RR. OF NEW ORLEANS

3	660	E-1530	B-B	59,850	199,500	1940
4	660	——	B-B	59,400	198,000	1941
11, 12, 13, 14	1000	——	B-B	69,000	230,000	1948
21, 22	1500	Rd.-Sw.	B-B	62,500	250,000	1948
23	1500	Rd.-Sw.	B-B	62,500	250,000	1949
24	1600	RS-3	B-B	64,630	258,520	1956

Miscellaneous Notes

STEAM POWER: No. 400 was formerly Ft. Worth & Denver 410. Bought in 1958 for use in times of high water. Stored in Shreveport roundhouse. Classified as Work Equipment.

T&P's last steam passenger run was made Nov. 9, 1951, from Shreveport to New Orleans with train 28, engine 800, a 2-8-2 type. T&P's last steam freight run was made Feb. 20, 1952, from Alexandria to Shreveport with engine 388, Class D-10s, a Ten-wheeler. H. L. Kelso will be interested to know that T&P's last active 2-10-4, No. 650, made her final run Aug. 12, 1951, Texarkana to Ft. Worth.

T&P steam locos on display: No. 316, Class D-9 (4-6-0), as No. 75 at Abilene, Tex. No. 610, Class 1-1AR (2-10-4), at Ft. Worth, Tex. No. 909, Class M-2 (4-8-2), at Dallas, Tex. (Actually, NYC 3001 is displayed as T&P 909.)

DIESEL POWER. All T&P system diesels were built by General Motors, Electro-Motive Division, except that Alco built all those on the T&P-MP Terminal RR. of New Orleans.

Nos. 1500, 1501, 1581, 1582, 1531B, 1533B, and 1534B were re-geared and modified for passenger service.

No. 23 of T&P-MP Terminal RR. of New Orleans was formerly T&P 1100, bought May '52.

This roster was compiled by Charles M. Mizzell, Jr., 6623 Santa Fe Ave., Dallas 23, Tex., from data supplied by T&P Mechanical and Public Relations departments.

THE SWITCH LIST

ALL ENTRIES are printed free, in good faith but without guarantee. Keep within 28 words, including name and address. Use our common abbreviations such as Incl. (including), tts(timetables), emp. tts (employees timetables), and SAS (send 4c stamped envelope for list or information).

Every entry we get will appear in the next available issue; but we work far ahead, so don't be disappointed if yours is not printed immediately.

Be sure to state: (1) Sizes of pix, (2) whether those pix show steam, diesel, or what-have-you, and (3) whether or not a list is available.

Address Sy Reich, Railroad Magazine, 205 East 42nd Street, New York 17, N. Y.

DICK ANDERSON, 334 S. Prindle Ave., Arlington Heights, Ill., sells size 116 and p.c. negs., steam, diesel, elec.

HARRY KELSO, Box 42, Pitsburg, Kan., buys, trades, sells switch keys, locks, passes, tokens, other railroadiana.

HAL ARMSTRONG, 521 N. Grant St., Hinsdale Ill., sells back issues Trains. (SAS)

JIM BLACKSTOCK, 2626 Florida Ave., N. W., Roanoke, Va., will trade N&W loco builder's plates for N&W builder's and number plates.

DICK BOGGIANO, 326 Audubon Ave., New York, N.Y. sells size 8x10 steam pix, rr. ferry pix.

MIKE BOYER, 74 St. Marks Pl., New York 3, N. Y., will swap stamps, picture postcards, postmarks for rr. mags., fiction pocketbooks, comics.

BURDELL BULGRIN, Owen, Wisc., buys DM&IR loco bldr. plates, any steam loco diagram book.

E. G. BURICK, 2007 Charles St., Rockford, Ill., wants 8mm movies esp. color, 35mm color slides C&NW, IC, CB&Q.

L. E. BURNETT, 24 Parkwood Ave., Mill Valley, Calif., will buy Morse telegraph key in good cond.

P. CASSELL, 1327 W. 23rd St., Merced, Calif., will buy any Yos. Val. steam loco for museum.

DAVID CONRAD, you gave no city address.

H. CLAUSEN, 5007 4th Ave., Brooklyn, N. Y., buys, trades Eastern rr. tts., emp. tts. prior to '40. Wants NYO&W, LIRR, NYC. (SAS)

BILL CORBEN, 9325 Walnut, Kansas City, Mo., trades sizes 120, 616, p.c. size steam negs., US, Canadian, for KCS, UP steam.

EUGENE DAUNER, 182 Hasbrouck Ave., Pt. Ewen, N. Y., sells set of ten NYO&W forms 1934-'37.

OWEN DAVIES, 1214 LaSalle St., Chicago, Ill., buys, sells back issues Railroad Magazine, books, other railroadiana; big list free.

DON ETTER, 9565 Willis Rd., Willis, Mich., will buy brass No. plate from GTW 6300's or 6500's.

FRED FOX, 333 Enxing, West Carrollton, O., sells CRT '41 map, Ind. Rys. '48 map, tokens, tts., LATL tokens. (SAS)

CARL GAY, 460 Linden Ave., Winnipeg, Man., Canada, sells CNR, CPR, some US rrs. steam pix. (SAS)

DICK GIBBONS, 117 Bacon St., Natick, Mass., will sell collection of Railroad Magazine, Trains, RRy. Age, emp. mags. (List, SAS)

JIM GILLIN, 113 Shisler Ave., Aldan, Pa., desires pen pals interested in elec. rys. and trolleys.

BRUCE HALVORSEN, 1819 N. Normandy, Chicago, Ill., buys good quality 35mm color steam slides C&NW, CB&Q, CM, SP&P, GN, NP, UP.

GRAHAME HARDY, Box 622, Carson City, Nev., buys, sells railroadiana, incl. new and second-hand books. Big list free.

JIM HART, 1718 Langley Rd., Essex, Md., buys, trades PRR, B&O, N&W steam builders' plates.

BOB INGHRAM, Box 194, Chesapeake, O., buys any size negs., pix, slides Kelly's Crk. RR, Kanawha & Mich., NYC in W. Va.

ARNOLD JOSEPH, 2512 Tratman Ave., New York, N. Y., sells back issues Railroad Magazine, Trains, model mags., NRHS bulls., etc. (SAS)

DOM KISSICK, 36 Thompson St., Princeton, Ill., wants CA&E emp. tts., any size negs., pix CA&E, CNS&M, CSS&SB.

TOM KONIECZNY, 625 N. 7 St., E. St. Louis, Ill., seeks teen-age pen pals, elec. or steam fans.

ROGER KRUEGER, 1936 Brigden Rd., Pasadena,

A — So. Pacific "C.P. Huntington"
B — New York Central "999"
C — Santa Fe "Cyrus K. Holliday"
D — Pennsylvania "Pioneer"
E — Chicago No. Western "Berkshire"
F — Pennsylvania "GG 1"
G — Santa Fe "F-7"

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Calif., sells size 616 pix, negs. SP, Western shortlines. List free.

BILL LINLEY, 431 Brittany Dr., Ottawa, Ont., Canada, sells, trades pix, negs. steam, diesel, elec., sizes 616, 620. List free.

FRANK LITZENBURG, 1807 Albert Dr., Silver Springs, Md., wants any size pix, emp. tts. B&O, C&O.

L. C. LIVELY, 1810 E. Avery St., Pensacola, Fla., sells B&HS 2-6-2 8mm color action movies, 3x5 pix, 2¼x2¼ Kodachrome pix.

WARREN MARCUS, 1130 4 St., San Rafael, Calif., buys any size negs., pix NWP steam, elec. pass. and frt. trains.

MARVIN MAYNARD, 19741 Louise Court, Castro Valley, Calif., sells UP emp. tts., SP, WP steam tr. orders, Off. Guides, Ry. Equip. Registers.

DICK McCANN, 9890 Willow Ave., Grant, Mich., will trade sizes 620, 616 diesel negs., pix GTW, NYC, PRR, C&O for 35mm to 616 size negs., pix other US rrs.

ED McGRATH, Box 376, Mahanoy City, Pa., will sell Reading airbrake book '54.

L. D. MOORE, Jr., 2102 Parker Ave., Portsmouth, Va., will send new list steam, elec. pix, negs., tts., mags., etc. for 10c.

TOM MULLAHEY, 933 E. Center St., Mahanoy City, Pa., will sell 205 emp. tts. from 50 rrs., also train orders.

DAVE NESTLE, 81 Hill St., Greenwich, N. Y., has big new list of railroadiana. Send 8c in stamps.

ARTHUR NUESELL, 8313 14 Ave., Brooklyn, N. Y., wants list of all Pullman car names; wants to hear from anyone interested in names of cars, locos.

JIM ORR, 471 Rock Creek Dr., Ann Arbor, Mich., buys, trades for Baldwin, Lima, Alco builder's and number plates.

MERLE RICE, 5827 Fernwood, Ft. Wayne, Ind., wants CERA Bul. 101 Ind., pix, info. B&O, traction in Ind. Sells 35mm slides steam, diesel, elec., many rrs. List 10c.

GARY SCHRAFFENBERGER, 1302 Ashland Ave., Dayton, O., wants any size pix, info. on Fla. rrs., esp. abandoned or short lines. Answers all mail.

BOB SCOTT, 7202 Bybrook Lane, Chevy Chase, Md., wants info., pix of Huntingdon & Broadtop Mt.

FRANK SEIFFERT, Jr., Box 21, Orange, N. J., sells pix Eastern steam, trolleys. Each list plus 5x7 sample, 25c. Both lists plus two 5x7 samples 40c.

BEN SMITH, 265 Tompkins Ave., Brooklyn, N. Y., buys and sells loco cyclopedias, pix, rr. bks., rr. calendars, rr. mags., tinplate catalogs.

ED SPITZER, 7722 28th Ave., Kenosha, Wis., will trade diesel and elec. 35mm slides from Chicago area for other slides, esp. GN, NP, SP, SP&S, T&P.

WES STEAD, Box 592, Effingham, Ill., wants wreck pix, esp. MP at Claflin, Kan., Apr. 2, 1945, and Sageeyah, Okla., Apr. 21, 1943.

ALLAN STOKES, 3958 S. Hill St., Los Angeles 37, Calif., buys steam bldr. pix. any size, any bldr., also loco bldr. bound books.

TOM STRAUSS, 303 17 Ave. N.E., Minneapolis, Minn., buys any size diesel pix L&N, B&M, MEC, D&RGW, CNJ, DM&IR, MSP&SSM, LV, NKP, CMSP&P, SP&S.

PAUL THOMPSON, 229 N. Summit Ave., Prescott, Ariz., wants any size pix, negs. Santa Fe steam, SP cab-in-fronts, 3800's, 2-8-8-4's, 4300's.

DICK TREGENNA, 3647 Randolph Rd., Cleveland, O., wants rosters and any size pix of trolleys in Scranton, Altoona, Allentown, Little Rock, Memphis, Cornwall City.

JOHN TRULSON, 57 Sunnyside, Mill Valley, Calif., seeks any size pix, info. on SP 1500 4-4-0's.

A. VON BLON, Jr., P.O. Box 6422, BU Sta., Waco, Texas, will sell Railroad Magazine '35-'47. Seeks whereabouts of Lon Emery, SP switchman, later yardmaster in Calif., also worked for Texas Transp. Co., presumably now retired.

ROY WAKE, 1429 W. Congress Pkwy., Chicago, Ill., sells sizes 3½x5, 5x7, 8x10 steam pix. (List, SAS)

BILL WARDEN, 1216 Shamrock Lane, Waynesboro, Va., sells N&W, VBR, BC&G steam action pix, size 8x10.

A. W. WEILAND, 15016 Schuyler Ave., Cleveland, O., has list of railroadiana, incl. tts., emp. tts., passes, tickets (SAS)

JOHN WILLIAMS, Jr., 8 Hovey Lane, Hanover, N. H., wants pix B&M, CV pass. Cars '30-'60, B&M 2-10-2's.

ROY McCOLLUM (retired SP switchman-condr.), 1580 33rd Ave., Oakland, Calif., buys, swaps, sells switch keys. Wants Morse tel. pen pals.

H. N. PROCTOR, Box 48, Muncie, Ind., selling collection sizes 116, 116 steam, diesel, elec. prints, U.S., foreign, 8c ea. No list; state wants.

GEO. EWING, Box 163, Port Alice, B.C., Canada, will buy miniature steam locomotive capable of pulling trainload of 15 or 20 children.

J. SWANBERG, Newtown, Conn., will buy or trade for steam loco bldr. plates and number plates, all rds. Answers all mail.

WM. STAUDE, 19 E. Central Ave., Telford, Pa., sells size 616 negs. Rdg. Iron Horse Rambles. Also size 616 camera, good cond. (SAS).

WALT GRANDE, 4243 S.W. Admiral St., Portland, Ore., wants pix, size 616 or bigger, all lines in Pacific NW prior to 1940.

I. E. QUASTLER, 21 Grand St., Apt. 507, London, Ont., Canada, wants action pix, any size, CNR 1374, 1586, 4007, 2630, 5300, 5272, 6131, 6403, 7470, 8399, 3738.

MIKE KESSLER, 5916 Adenmoor St., Lakewood, Calif., wants original bldr. photos, catalogs, Lima and Willamette Shays, also Climax, Heisler, Dunkirk, Porter, and Baldwin geared locos.

JERRY DUNCAN, 3092 Cascade Way, Salt Lake City, Utah, has one Wab. and 4 Pennsy tts., all April 27, '52, to trade for other tts. or sell 25c. ea.

WM. WOELFER, 149 S. Eastland Dr., Lancaster, Pa., buys slides, any size snaps, Santa Fe steam, all n.g. rds., heavy elecs. all rds., GN geared locos.

DICK SHORT, 303 S. 4th St., Philadelphia, Pa., swaps size 616 negs., 35mm slides, Eastern steam, standard-type trolleys. Sells pc size pix Pa. trolleys. (SAS)

DON KISSICK, 36 Thompson St., Princeton, Ill., wants interurban motormen pen pals. Will buy any size negs. No. Shore, CSS&SB, and IC elecs., b&w or color.

R. H. REID, 633 Overhill Dr., McKeesport, Pa., will sell over 600 35mm color slides NYC, Pennsy, B&O, B&LE, 20c ea. Send stamped env. for sample.

ALVIN STAUFER, Box 57, LeRoy, O., offers 1916 Loco. Cyclopedia for any 3 of these calendars: Pennsy 1926, '27; NYC 1921, '22, '25. Also wants NYC 1927 booklet on 25th anniv. of 20th Cent. Ltd.

EMZY THOMPSON, Box 415, Hagerstown, Md., wants European tram fans as pen pals. Also book "British Ry. Medals & Tokens" and transp. tokens Europe, Asia.

JIM HENNEBERGER, 4207 Idlewild, North Little Rock, Ark., wants info and any size pix CRI&P, Frisco, MP, Cotton Belt, M&A.

WM. KUBA, 2900 D Ave., N.E., Cedar Rapids, Iowa, has bought big CPR neg. collection of Ernie Plant, Horseshoe Bay, B.C., Canada; will sell size 616 pix. (SAS)

WALT THAYER, Box 1634, Wenatchee, Wash., sells loco pix, sizes 120, 116, pc, 4x5 many rds.; 35mm slides; N.Z. trolley pi;. (SAS)

Model Trading Post

CASE KOWAL, 2743 W. 55 St., Chicago, Ill., will sell bound vols. Model Engr. Nos. 98-101, 103, excellent cond.

JOHN KOWALSKI, 2300 W. 21st St., Chicago, Ill., will sell Santa Fe model car and loco plan book, back issues Mdl. Ry News.

GLEN MADER, 1122 N. Chad St., San Angelo, Texas, AF S-gage two-track layout. (SAS)

L. D. MOORE, Jr., 2101 Parker Ave., Portsmouth, Va., sells tinplate, scale catalogs, tinplate trs., model mags. List, 10c.

MERLE RICE, 5827 Fernwood, Ft. Wayne, Ind., sells HO gage locos, turntables, cars, TT gage misc., Lionel cars, etc. (SAS)

FRANK SEIFFERT, Jr., Box 21, Orange, N. J., will sell Lionel std. gage 0-4-0 9U, pass. cars 428-430.

A. W. WEILAND, 15016 Schuyler Ave., Cleveland, O., sells HO gage cars, locos, equip. (SAS)

A. D. WELLBORN, Box 2487, Ft. Worth, Texas, trades O gage equip. for HO gage. List free.

Portland section of *Empire Builder* arrives at Wishram with 8-car consist to be turned over to GN at Spokane. No. 750 is the only SP&S loco painted GN colors.

Spokane, Portland & Seattle

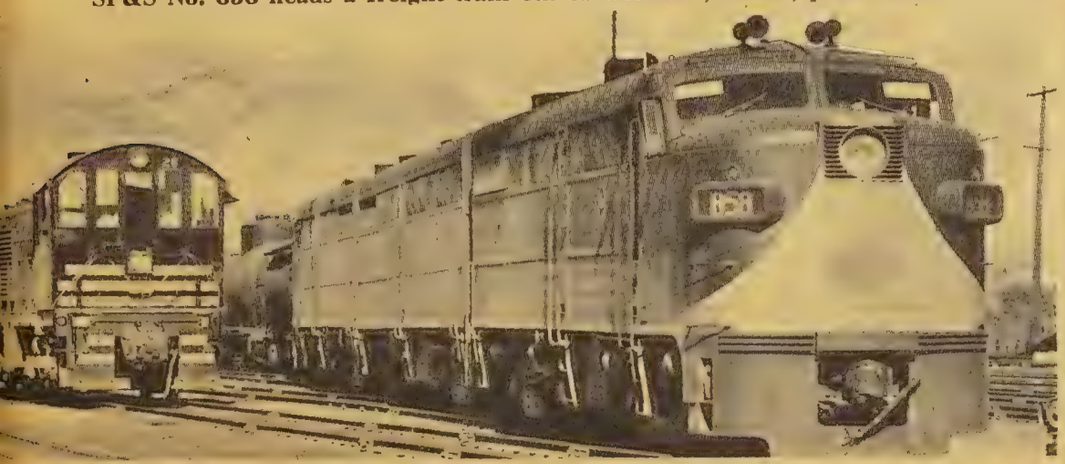
Locomotive roster compiled by Sy Reich

Road Numbers	HP	Builder	Model	Wheel Arngmt.	Tract. Eff.	Weight	Date Built	Notes
10-11	660	Alco-GE	S-1	B-B	49,500	198,000	1941	
20-28	1000	Alco-GE	S2	B-B	57,500	230,000	1940-'3	
30-31	1000	Baldwin	VO	B-B	59,425	237,700	1940	
32	1000	Baldwin	VO	B-B	59,445	237,780	1942	
33-34	1000	Baldwin	VO	B-B	61,000	243,800	1945	
40-42	1000	GM-EMD	NW2	B-B	61,886	247,546	1948	
43-45	1200	GM-EMD	SW9	B-B	61,475	245,910	1951	
50-55	1000	Alco-GE	RS-1	B-B	60,625	242,500	1945	
60-62	1500	Alco-GE	RS-2	B-B	60,765	243,060	1949-'50	
65-68	1600	Alco-GE	RS-3	B-B	60,875	243,500	1950	
69-82	1600	Alco-GE	RS-3	B-B	61,250	245,000	1951, '3	
83-84	1600	Alco-GE	RS-3	B-B	62,250	249,000	1953	1
90-98	1600	Alco-GE	RS-3	B-B	61,530	246,100	1955	
150-153	1750	GM-EMD	GP9	B-B	64,085	256,340	1956	
154-155	1750	GM-EMD	GP9	B-B	61,932	247,730	1956	
200-205	1500	Alco-GE	FB-1	B-B	62,250	249,000	1949	
206-209	1500	Alco-GE	FB-1	B-B	62,250	249,000	1948-'9	2
210-213	1600	Alco-GE	FB-2	B-B	62,250	249,000	1950	
750	2000	GM-EMD	E7A	A1A-A1A	51,900	308,020	1948	
800-802	1500	GM-EMD	F3A	B-B	62,470	249,900	1947-'8	
803-806	1500	GM-EMD	F7A	B-B	62,250	249,000	1953	
850-861	1500	Alco-GE	FA-1	B-B	62,250	249,000	1948-'9	
862-865	1500	Alco-GE	FA-1	B-B	62,250	249,000	1948-'9	3
866-869	1600	Alco-GE	FA-2	B-B	62,250	249,000	1950	

Roster bsed on data supplied by General Mechanical Supt., SP&S, is accurate as of June 29, 1960. All locomotives listed above are owned by SP&S, but some run on the Oregon Trunk and the Oregon Electric railways. Notes: (1) 83-84 bought from Great Northern in 1959, ex 231-232. (2) 206-209 bought from GN in 1950, ex 440B, C, and 442B, C. (3) 862-865 bought from GN in 1950, ex 440A, D. and 442A, D. ●

Both photos on this page by David Plowden

SP&S No. 858 heads a freight train out of Wishram, Wash., past switcher No. 26.



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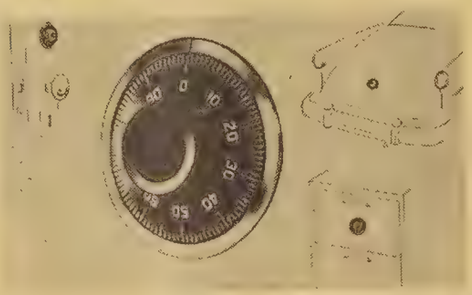

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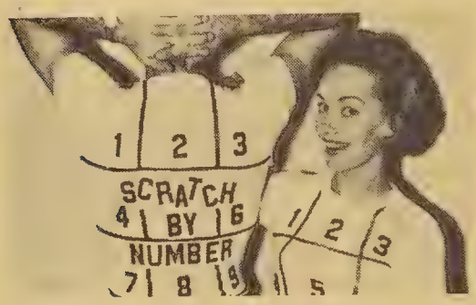

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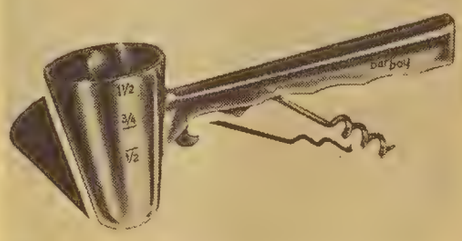

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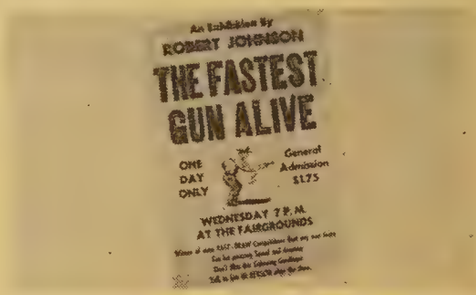

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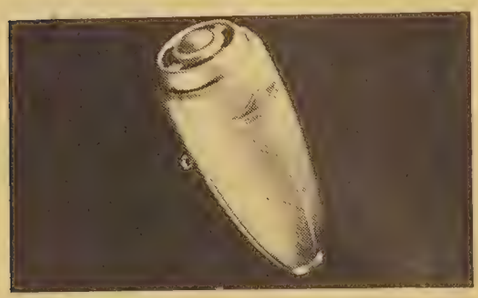

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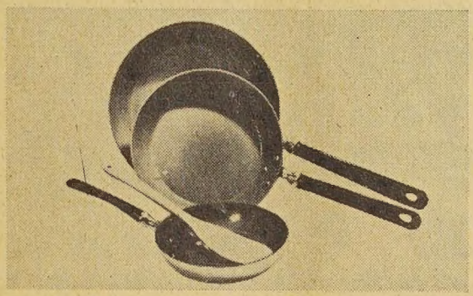

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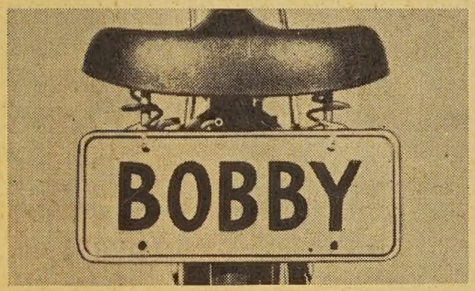

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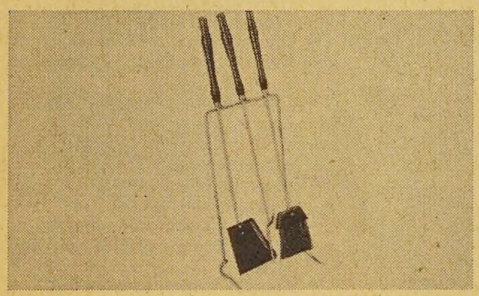

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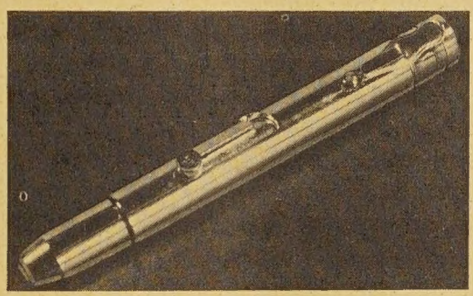

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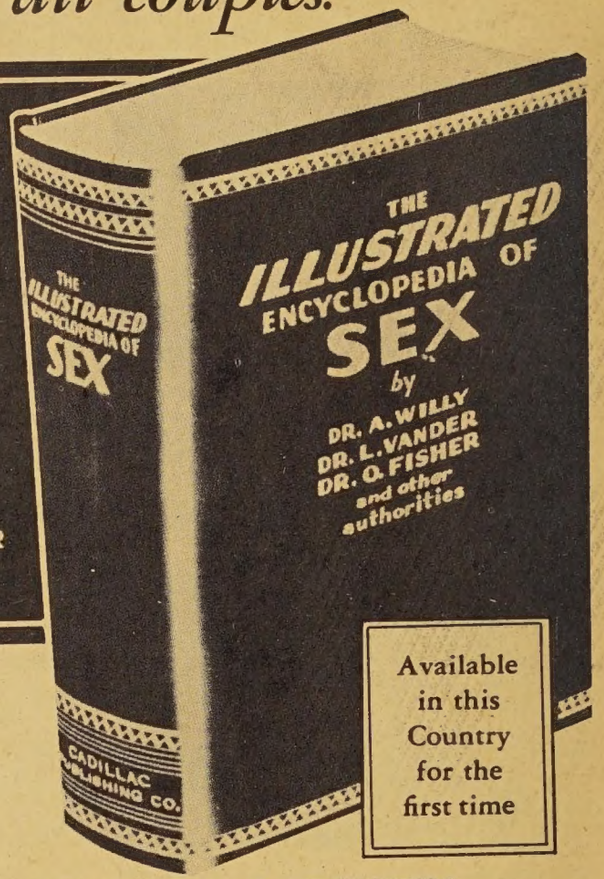

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